

**CONTRACT NO. 473-13-00105**

**THE PUBLIC UTILITY COMMISSION OF TEXAS  
AND  
TETRA TECH MA, INC.**

The parties to this contract are the Public Utility Commission of Texas, a duly organized agency of the state of Texas with its office located at 1701 N. Congress Ave., Austin, TX 78701 and Tetra Tech MA, Inc., located at 700 N St. Mary's Street, Suite 300, San Antonio, TX 78205.

**Article 1. DEFINITIONS**

When used in this Agreement, the following terms shall have the following meanings:

**1.1 "Public Utility Commission," "PUCT," or "Commission"** means the Public Utility Commission of Texas acting through its executive director and the agency's designated Contract Administrator.

**1.2 "Contractor"** means Tetra Tech MA, Inc. and any successors, heirs, and assigns.

**1.3 "Services"** means any and all services performed and any and all goods and products delivered by Contractor as specified in Attachment A, Best and Final Offer, submitted to the PUCT on January 14, 2013

**Article 2. COMPENSATION**

**2.1 Compensation.** Contractor agrees to provide all services (including labor, expenses, and any other services) for an amount not to exceed \$5,688,417, as budgeted in Attachment A. Contractor understands that the PUCT is not responsible for payment of any costs or expenses exceeding this amount.

If Contractor believes that changes in the scope of services to be performed will require Contractor to increase its fee, it must request the PUCT's written authorization to increase its fee. The Contractor must document the changes in the scope of services and why they will require additional effort. The Commission must approve the increase in fee by written amendment to this Agreement before the Contractor performs any services or may invoice the increased fee.

**2.2 Payment Process.** Contractor will submit a monthly statement for services or invoice to the PUCT Contract Administrator no later than the tenth day of the month after the month that the services were performed. The invoice must contain the names of the persons performing services and a brief description of the work performed. No payment will be made for administrative overhead, overtime, etc.

The statement or invoice must include the vendor identification number issued by the Texas Comptroller or Contractor's federal taxpayer identification number, a description of the services provided, and the name and division of the Agency Contract Administrator. Contractor shall submit the statement or invoice to the PUCT as follows:

By email to: [Payables@puc.state.tx.us](mailto:Payables@puc.state.tx.us) or by mail to:  
Wayne Moss  
Operations Division

Public Utility Commission of Texas  
P. O. Box 13326  
Austin, TX 78711-3326

**2.3 Payment for Services.** Contractor's acceptance of payment for the final invoice releases the PUCT of all claims for compensation owed in connection with this Agreement.

**2.4 Payments made to Subcontractors.** Contractor shall pay any subcontractor hereunder the appropriate share of payments received not later than the 10th day after the date Contractor receives the payment. The subcontractor's payment shall be overdue on the 11th day after the date Contractor receives the payment. The PUCT must approve Contractor's use of any subcontractor before Contractor engages the subcontractor (see Sec. 5.1).

**2.5 Records.** Contractor and its subcontractors shall maintain records and books of account relating to services provided under this Agreement. Such records and books shall be made available to the PUCT, its designee, or the Texas State Auditor's Office for review upon reasonable notice during Contractor's normal business hours for a period of at least four years after the end of the term of the Agreement.

**2.6 Sole Compensation.** Payments under this Article are Contractor's sole compensation under this Agreement. Contractor shall not incur expenses with the expectation that the PUCT or any other agency of the state of Texas will directly pay the expense to a third-party vendor irrespective of the reason for incurring those expenses.

### **Article 3. CONTRACT ADMINISTRATION**

**3.1 PUCT Contract Administration.** The PUCT designates Katie Rich to serve as its Contract Administrator. Contractor acknowledges that the PUCT Contract Administrator has no authority to amend this Agreement on behalf of the PUCT, except as expressly provided herein. Contractor further acknowledges that such authority is exclusively held by the Commission or its authorized designee, Executive Director Brian H. Lloyd.

**3.2 Contractor Contract Administration.** Contractor designates its Contract Administrator as follows: Lark Lee

**3.3 Reporting.** Contractor shall report directly to the PUCT Contract Administrator and shall perform all activities in accordance with reasonable instructions, directions, requests, rules and regulations issued during the term of this Agreement as conveyed to Contractor by the PUCT Contract Administrator.

**3.4 Cooperation.** The Parties' Contract Administrators shall handle all communications between them in a timely and cooperative manner. The Parties shall timely notify each other by email or other written communication of any change in designee or contact information.

**3.5 Inquiries and Prompt Referral.** Contractor will promptly refer all inquiries regarding this Agreement received from state legislators, other public officials, the media, or non-parties to the PUCT Contract Administrator.

### **Article 4. REPORTS AND RECORDS**

**4.1 Written Reports.** Contractor will provide written reports to the PUCT in the form and with the frequency specified in Attachment A or as agreed to between the parties.

**4.2 Other Reports.** Contractor agrees to provide additional reports, including oral reports, as reasonably requested by the PUCT. If such additional report requires compensation to Contractor, Contractor will notify the PUCT of the estimated cost of providing the information

and information substantiating the estimated cost.

**4.3 Records Review.** Contractor shall, for a period of four (4) years following the expiration or termination of this Agreement, maintain its records (electronic and paper) of the work performed under this Agreement. Records include, but are not limited to correspondence concerning the subject of this Agreement between Contractor and the PUCT; Contractor's internal correspondence; and correspondence between Contractor and any third party. Contractor shall make all records that support the performance of Services and payment available to PUCT and/or its designees or the State Auditor during normal business hours given reasonable notice, upon the request of the PUCT Contract Administrator.

## **Article 5. SUBCONTRACTING PARTIES**

**5.1 Use of Subcontractors.** At the time of execution of this Agreement the parties agree that Contractor contemplates using the following subcontractors: Texas Energy Engineering Services (TEESI); Texas A&M's Texas Center for Applied Technology (Texas A&M); Johnson Consulting Group; The Cadmus Group Inc. (Cadmus); and Itron Inc. (Itron). Contractor will notify the PUCT Contract Administrator of any further proposed subcontract and will work with the PUCT HUB Coordinator to procure such other subcontractor and to submit appropriate subcontractor selection documentation for approval prior to engaging any subcontractor, such approval not to be unreasonably withheld. Any such subcontract or subsequent substitution of a subcontractor must be approved according to the terms of Article 7.

**5.2 Sole Responsibility.** Contractor is solely responsible for the quality and timeliness of the work produced by all subcontractors that Contractor may engage to provide Services hereunder and for the timely payment for all such work produced by all subcontractors.

**5.3 Prime Vendor Contract.** The Parties expressly agree that this Agreement is intended to constitute a prime vendor contract, with Contractor serving as the prime vendor for delivery of the Services made the subject hereof. Contractor acknowledges and agrees that it is fully responsible for timely, complete delivery of the Services described in this Agreement, notwithstanding the engagement of any subcontractor to perform an obligation under this Agreement.

**5.4 Required Subcontracting Provision.** Contractor shall legally bind each subcontractor to perform and make such subcontractor subject to all the duties, requirements, and obligations of Contractor under this Agreement. Contractor shall be jointly and severally liable for all performances under this Agreement, including, but not limited to, the performance of its subcontractors to the extent permitted under the Constitution and laws of the State of Texas, as well as for full compliance with all reporting requirements set forth in this Agreement.

## **Article 6. TERM, SUSPENSION AND TERMINATION**

**6.1 Term.** The term of this Agreement shall begin on February 15, 2013 and shall continue in effect until December 31, 2014 unless sooner terminated under Sections 6.2 or 6.3 of this Agreement. The parties may agree to exercise up to two one-year optional renewals, ending December 31, 2015 and December 31, 2016, respectively.

**6.2 Termination for Cause by the PUCT.** If Contractor is in default of any material term of this Agreement, the PUCT may serve upon Contractor written notice requiring Contractor to cure such default. Unless within thirty (30) days after receipt of said notice by Contractor, said default is corrected or arrangements satisfactory to the PUCT, as applicable, for correcting the default have been made by Contractor, the PUCT may terminate this Agreement for default and



shall have all rights and remedies provided by law and under this Agreement. In the event of termination, Contractor will provide reasonable cooperation to transfer its duties under the Agreement to another entity without disruption to the provision of services.

**6.3 Termination for the Convenience of the PUCT.** The PUCT may, upon sixty (60) days written notice to Contractor, terminate this Agreement whenever the interests of the PUCT so require. Upon notice of termination, Contractor shall take all reasonable measures to mitigate termination costs. Contractor shall have sixty (60) calendar days to submit a termination settlement proposal to the PUCT that shall describe all termination costs for which Contractor is seeking reimbursement. Contractor will provide the PUCT with supporting documentation and information that the PUCT deems necessary for a review of the proposal. Payment of any termination settlement costs will occur only if the PUCT has approved payment of the costs outlined in the proposal. In any event the Contractor will be paid no more than all accrued and unpaid fees and allowable expenses to the date of termination for all work accepted by the PUCT.

**6.4 Survival.** In the event that this Agreement expires or is terminated pursuant to its terms, the rights and obligations of the Parties under it shall end; provided that the provisions of Article 2, Sections 4.3, 7.3, 7.5, 19.1 through 19.3, and Articles 10, 11, 12, 14, 15 and 16 shall survive in their entirety

## **Article 7. ASSIGNMENT, AMENDMENTS AND MODIFICATIONS**

**7.1 Material Change Requests.** PUCT may propose changes to the services provided. Upon receipt of a written request from the PUCT for a change in services, Contractor shall, within a reasonable time thereafter, submit to the PUCT a detailed written estimate of any proposed price and schedule adjustment(s) to this Agreement. No changes to Services will occur without the Parties' written consent as provided in accordance with the terms stated in this Agreement.

**7.2 Changes in Law, Rules, or Rulings.** Subsequent changes in federal and state legislation or rules, and regulations or rulings by the PUCT may require modification of the terms of this Agreement, including an increase or decrease in Contractor's duties or compensation. In the event of such subsequent changes to statutes, rules and/or regulations, the PUCT and Contractor shall negotiate the terms of a contract modification, whether an increase or a decrease in Contractor's duties or compensation, in good faith and incorporate such modification into this Agreement by written amendment.

**7.3 No Assignment of Duties.** This Agreement shall be binding upon and inure to the benefit of the permitted successors and assigns of either Party (including by merger of Contractor or otherwise by operation of law); provided however that Contractor shall not otherwise, without the prior written consent of the PUCT, assign or transfer this Agreement or any obligation incurred under this Agreement. Any attempt by Contractor to assign or transfer this Agreement or any obligation incurred under this Agreement, in contravention of this paragraph, shall be void and of no force and effect.

**7.4 Amendments and Modifications.** This Agreement may not be amended or modified in any manner except by written instrument executed by authorized representatives of the Parties in accordance with the terms of this Agreement.

**7.5 Binding on Successors.** The terms of this Agreement shall be binding on any successor organization of any of the Parties.

## **Article 8. REPRESENTATIONS, WARRANTIES AND COVENANTS**

**8.1 Warranty of Performance.** Contractor represents, warrants, and covenants that it will perform the Services in a professional and workmanlike manner, consistent with professional standards of practice in the industry.

**8.2 Warranty of Services.** Contractor warrants that the services shall be rendered under the supervision of the qualified personnel named in Section 19.7 of this Agreement. If Services provided under this Agreement require a professional license, then Contractor represents, warrants, and covenants that the activity will be performed only by duly licensed personnel.

## **Article 9. RISK OF LOSS AND PROPERTY RIGHTS**

**9.1 Risk of Loss.** The risk of loss for all items to be furnished hereunder shall remain with Contractor until the items are delivered to the PUCT, at which time the risk of loss shall pass to the PUCT.

**9.2 Ownership.** Except for materials where any intellectual property rights are vested in a third-Party, such as software or hardware, in which case such rights shall remain the property of the third Party, all finished materials, conceptions, or products created and/or prepared for on behalf of the PUCT and purchased by the PUCT, or on behalf of the PUCT, that the PUCT has accepted as part of the performance of services hereunder, including copyright, trademark, and service mark, shall be the PUCT's property exclusively and will be given to the PUCT either at the PUCT's request during the term of the Agreement or upon termination or expiration of the Agreement. Any proprietary modeling will remain the Contractor's, and the PUCT will receive relevant output results and assumptions. Notwithstanding the foregoing, materials, documents, data, or reports created, prepared for, or purchased exclusively by the PUCT or on behalf of the PUCT are the PUCT's exclusive property regardless of whether delivery to the PUCT is effectuated during or upon termination or expiration of this Agreement.

Facilities and equipment owned and used by Contractor to provide Services remain the property of Contractor and nothing in this Agreement will be construed to require Contractor to transfer ownership to the PUCT.

**9.3 Licensed Software.** Contractor may obtain software licenses as an agent of the PUCT for software that is used by Contractor solely for the purpose of providing services under this Agreement. Contractor shall provide the PUCT with a copy of any software license obtained by Contractor as an agent for the PUCT for the purpose of providing services under this Agreement.

**9.4 Prior Works.** Except as provided herein, all previously owned materials, conceptions or products shall remain the property of Contractor and nothing contained in this Agreement will be construed to require Contractor to transfer ownership of such materials to the PUCT.

**9.5 Trademarks.** The Parties agree that no rights to any trademark or service mark belonging to another Party or to any non-Party are granted to any other Party by this Agreement, unless by separate written instrument. The PUCT acknowledges and agrees that use of any trademark associated with any software provided by Contractor under this Agreement does not give the PUCT any rights of ownership in the trademark or the software.

**9.6 Program Information.** Program information, data, and details relating to Contractor's services under this Agreement shall be maintained separately from Contractor's other activities. Contractor shall undertake all care and precaution in the handling and storing of this information consistent with the standards in the industry.

**9.7 Provision to be Inserted in Subcontracts.** Contractor shall insert an article containing paragraphs 9.2 and 9.6 of this Agreement in all subcontracts hereunder except altered as necessary for proper identification of the contracting Parties and the PUCT under this Agreement.

## **Article 10. TREATMENT OF INFORMATION**

**10.1 Parties' Confidential Information.** The Parties agree to take all reasonable steps and the same protective precautions to protect confidential information from disclosure to third parties as with their own proprietary and confidential information. Contractor may receive from utilities certain proprietary confidential information as that term is defined in PUCT Substantive Rule 25.272(c)(5). Contractor agrees to abide by the provisions of PUCT Substantive Rule 25.272(g)(1) to safeguard such proprietary confidential information.

Confidential Information submitted by Contractor to the PUCT must be clearly marked. Without Contractor's written permission, the PUCT will not disclose, provide, or make available any information marked "confidential" by Contractor to any person except to the PUCT's employees, officers, directors, or third parties whose access is necessary to enable such party to exercise its rights hereunder.

**10.2 Third Party Confidential Information.** In order to perform the required services, Contractor may have access to information that third parties may have filed confidentially with the PUCT. Contractor will obtain the confidential information only after signing a protective order or non-disclosure agreement to maintain the confidentiality of the information.

**10.3 Texas Public Information Act. (Texas Government Code Chapter 552).** The Parties acknowledge that notwithstanding any other provisions of this Agreement, the Texas Public Information Act ("PIA") governs the treatment of all information held by or under the control of the Commission. The Commission promptly will notify Contractor of requests for Contractor's confidential information in order to provide an opportunity for Contractor to claim an exception to disclosure.

**10.4 Agreement Not Confidential.** The Parties acknowledge that not all terms of this Agreement may be confidential pursuant to the Texas Public Information Act, regardless of whether those terms are marked "Proprietary," "Trade Secret," or "Confidential." Contractor further acknowledges that in the event of a dispute over the release of this Agreement or part of this Agreement, the PUCT is bound by the decision made by the Office of the Attorney General.

## **Article 11. CONFLICTS OF INTEREST AND EMPLOYMENT RESTRICTION**

**11.1 No Conflicting Relationships.** Contractor certifies to the Commission that no existing or contemplated relationship exists between Contractor and the Commission that interferes with fair competition or is a conflict of interest, and that no existing or contemplated relationship exists between Contractor and another person or organization, whether or not located within the State of Texas, that constitutes or will constitute a conflict of interest for Contractor with respect to the Commission.

**11.2 Prohibition on Transactions with Parties Adverse to Commission.** Contractor agrees that during performance of this Agreement, it will neither provide contractual services nor enter into any agreement, oral or written, to provide services to a person or organization that is regulated or funded by the Commission or that has interests that are directly or indirectly adverse to those of the Commission. The Commission may waive this provision in writing if, in the



Commission's sole judgment, such activities of the Contractor will not be adverse to the interests of the Commission.

**11.3 Notice of Conflict.** Contractor agrees to promptly notify the PUCT of any circumstance that may create a real or perceived conflict of interest. Contractor agrees to use its best efforts to resolve any real or perceived conflict of interest to the satisfaction of the PUCT. Contractor's failure to do so shall be grounds for termination of this contract for cause, pursuant to Section 6.2.

## **Article 12. INDEMNIFICATION AND LIMITATION ON LIABILITY**

**12.1 Indemnification.** Contractor shall indemnify, defend and hold harmless the PUCT, the State of Texas, its officers and employees from any and all liabilities, claims, damages, expenses (including reasonable attorney's fees), demands or causes of action of whatever kind or nature asserted by a third party and occurring or in any way incident to, arising out of, or in connection with wrongful acts or material omissions of Contractor, its agents, employees and subcontractors, committed in the conduct of this Agreement.

The Parties agree that Article 12 is not intended to constitute a waiver by the PUCT of any immunities from suit or from liability it may have by operation of law against claims by third parties.

**12.2 Limitation of Liability.** Contractor shall not be liable to the PUCT or its officers and employees for any damages in excess of the amount of professional fees paid to Contractor under this Agreement. In no event shall Contractor be liable to the PUCT or any of its officers or employees for any incidental, consequential, indirect, special, or exemplary damages, including, but not limited to, loss of profits, revenue, data, business, or goodwill even if Contractor has been advised of the possibility of such damages.

## **Article 13. INSURANCE**

**13.1 Minimum Insurance.** Contractor shall, at its sole cost and expense, secure and maintain as a minimum, from the Effective Date and thereafter during the term of this Agreement, for its own protection and the protection of the PUCT: (a) commercial liability insurance and (b) workers' compensation insurance. The commercial liability policy shall provide a minimum coverage of \$500,000 per occurrence and \$1,000,000 aggregate. The workers' compensation insurance shall provide coverage in accordance with the statutory benefits prescribed for the state of Texas. The PUCT shall be named an additional insured on the commercial liability policy.

**13.2 Certificates of Insurance.** Contractor shall furnish to the PUCT certificates of insurance, signed by authorized representatives of the surety or insurers, of all such bonds and insurance and confirming the amounts of such coverage within ten business days of contract execution. Contractor shall provide the PUCT Contract Administrator with timely renewal certificates as the coverage renews. Failure to maintain such insurance coverage specified herein shall constitute a material breach of this Agreement.

## **Article 14. DISPUTE RESOLUTION**

The Parties agree to resolve disputes arising under this Agreement through the dispute resolution process provided for in Chapter 2260 of the Texas Government Code and Subchapter C of the PUCT Rules for Administrative Services.

#### **Article 15. SOVEREIGN IMMUNITY**

The State of Texas and the PUCT do not waive sovereign immunity by entering into this Agreement and specifically retain immunity and all defenses available to them under the laws of the State of Texas or the common law.

#### **Article 16. GOVERNING LAW**

Notwithstanding anything to the contrary in this Agreement, this Agreement shall be deemed entered into in the State of Texas and shall be governed by and construed and interpreted in accordance with the laws of the State of Texas that apply to contracts executed in and performed entirely within the State of Texas, without reference to any rules of conflict of laws. The Parties consent to the exclusive jurisdiction of the State of Texas. The Parties hereby submit to the jurisdiction of courts located in, and venue is hereby stipulated to, the state courts located in Travis County, Texas. Each Party stipulates that it is subject to the jurisdiction of the courts located in Travis County, Texas, for any cause of action arising from any act or omission in the performance of this Agreement. Further, each Party hereby waives any right to assert any defense to jurisdiction being held by the courts located in Travis County, Texas, for any cause of action arising from any act or omission in the performance of this Agreement.

#### **Article 17. COMPLIANCE WITH LAW**

**17.1 General.** Contractor shall comply with all federal, state and local laws; executive orders; and federal and state regulations and rules applicable at the time of performance and shall be liable for any damages caused by any violation. Contractor warrants that all services sold hereunder shall have been produced, sold, delivered, and furnished in strict compliance with all applicable laws and regulations, including Equal Employment Opportunity laws, to which they are subject. All laws and regulation required in agreements of this character are hereby incorporated by this reference.

**17.2 Taxes.** Contractor agrees to comply with any and all applicable state tax laws that may require any filing with and/or payment to the State of Texas as result of any action taken as a result of this Agreement.

**17.3 Worker's Compensation.** Contractor agrees that it shall be in compliance with applicable state worker's compensation laws throughout the term of this Agreement.

**17.4 Conflicts.** Contractor agrees to abide by the requirements of and policy directions provided by the Texas statutes and the rules and regulations of the PUCT, and will inform and consult with the PUCT when further interpretations or directions are needed in order to fully implement the rules and regulations of the Commission. In the event that Contractor becomes aware of inconsistencies between this Agreement and a Texas statute or PUCT rule, Contractor will so advise the PUCT and will cooperate fully to revise applicable provisions of this Agreement as necessary.

**17.5 Texas State Auditor's Office.** Contractor understands that acceptance of funds under this contract acts as acceptance of the authority of the SAO to conduct an audit or investigation in connection with those funds. The Contractor further agrees to fully cooperate with the SAO in the conduct of the audit or investigation, including providing all records requested. The Contractor will ensure that this clause is included in any subcontracts it awards. Additionally, the Contractor understands that the SAO shall have access to and the right to examine, audit, excerpt, and transcribe any pertinent books, documents, working papers, and records of the Contractor relating to this Agreement at any time.



## **Article 18. CONTRACTOR'S CERTIFICATION**

By accepting the terms of this Agreement, Contractor certifies that, to the extent applicable, it is in compliance with the following requirements and prohibitions. Contractor understands and agrees that a false certification may lead to termination of this Agreement for cause.

**18.1 Prohibitions on Gifts.** Contractor has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with this Agreement.

**18.2 Delinquent Obligations.** Contractor is not currently delinquent in the payment of any franchise or sales tax owed the State of Texas, and is not delinquent in the payment of any child support obligations under applicable state law.

**18.3 Antitrust.** Neither Contractor nor anyone acting for such firm, corporation, or institution has violated the antitrust laws of this State, codified in Section 15.01, et seq., of the Texas Business and Commerce Code or the Federal Antitrust Laws, nor has communicated directly or indirectly to any competitor or any other person engaged in such line of business for the purpose of obtaining an unfair price advantage.

**18.4 Family Code.** Contractor has no principal who is ineligible to receive funds under Texas Family Code § 231.006 and acknowledges that this Agreement may be terminated and payment may be withheld if this certification is inaccurate.

**18.5 Prohibited Compensation.** Contractor has not received compensation from the PUCT, or any agent, employee, or person acting on the PUCT's behalf for participation in the preparation of this Agreement.

**18.6 Government Code.** Pursuant to Texas Government Code § 2155.004, the individual or business entity named in this bid or contract is not ineligible to receive the specified contract and acknowledges that this contract may be terminated and payment withheld if this certification is inaccurate.

**18.7 Outstanding Obligations.** Payments due under the contract will be applied towards any debt that is owed to the State of Texas, including but not limited to delinquent taxes and child support.

**18.8 Contracting with Executive Head of State Agency.** The Agreement is in compliance with Texas Government Code § 669.003 relating to contracting with the executive head of a State agency.

**18.9 Buy Texas.** Contractor will comply with Texas Government Code § 2155.4441, pertaining to service contracts regarding the use of products produced in the State of Texas.

**18.10 Hurricane Recovery.** Under § 2155.006 of the Government Code, the vendor certifies that the individual or business entity named in this bid or contract is not ineligible to receive the specified contract and acknowledges that this contract may be terminated and payment withheld if this certification is inaccurate.

**18.11 Terrorist Financing.** The PUCT is federally mandated to adhere to the directions provided in the President's Executive Order (EO) 13224, Executive Order on Terrorist Financing – Blocking Property and Prohibiting Transactions With Persons Who Commit, Threaten to Commit, or Support Terrorism, effective 9/24/2001 and any subsequent changes made to it via cross referencing respondents/vendors with the Federal General Services Administration's Excluded Parties List System (EPLS), <http://www.epls.gov>, which is inclusive of the United States Treasury's Office of Foreign Assets Control (OFAC) Specially Designated National (SDN) list.

<http://www.treasury.gov/resource-center/sanctions/SDN-List/Pages/default.aspx>

Respondent certifies that the responding entity and its principals are eligible to participate in this transaction and have not been subjected to suspension, debarment, or similar ineligibility determined by any federal, state or local governmental entity and that Respondent is in compliance with the State of Texas statutes and rules relating to procurement and that Respondent is not listed on the federal government's terrorism watch list as described in Executive Order 13224. Entities ineligible for federal procurement are listed at:

<https://www.epls.gov/>

## **Article 19. GENERAL PROVISIONS**

**19.1 Relationship of Parties.** Contractor is and shall remain at all times an independent contractor, and nothing in this Agreement shall be deemed to create a joint venture, partnership, employment, franchise, master-servant, or agency relationship between the Parties. Except as expressly provided to the contrary elsewhere in this Agreement, no Party has any right or authority to act on behalf of another Party, nor to assume or create any obligation, liability or responsibility on behalf of another Party. Under no circumstances shall the relationship of employer and employee be deemed to arise between the PUCT and Contractor's personnel. Contractor shall be solely responsible for achieving the results contemplated by this Agreement, whether performed by Contractor, its agents, employees or subcontractors.

**19.2 Taxes and Statutory Withholdings.** Contractor acknowledges that it is not a PUCT employee, but is an independent contractor. Accordingly, it is Contractor's sole obligation to report as income all compensation received by Contractor under the terms of this Agreement. Contractor is solely responsible for all taxes (federal, state, local), withholdings, social security, unemployment, Medicare, Worker's Compensation insurance, and other similar statutory obligations (of any governmental entity of any country) arising from, relating to, or in connection with any payment made to Contractor under this contract. Contractor shall defend, indemnify and hold the PUCT harmless to the extent of any obligation imposed by law on the PUCT to pay any tax (federal, state, local), withholding, social security, unemployment, Medicare, Workers' Compensation insurance, or other similar statutory obligation (of any governmental entity of any country) arising from, relating to, or in connection with any payment made to Contractor under this Agreement. Further, Contractor understands that neither it nor any of its individual employees is eligible for any PUCT employee benefit, including but not limited to holiday, vacation, sick pay, withholding taxes (federal, state, local), social security, Medicare, unemployment or disability insurance, Worker's Compensation, health and welfare benefits, profit sharing, 401(k), or any employee stock option or stock purchase plans. Contractor hereby waives any and all rights to any such PUCT employment benefit.

**19.3 Notice.** Except as otherwise stated in this Agreement, all notices provided for in this Agreement shall be (a) in writing, (b) addressed to a Party at the address set forth below (or as expressly designated by such Party in a subsequent effective written notice referring specifically to this Agreement), (c) sent by Certified U.S. mail, Return Receipt Requested, with proper postage affixed and (d) deemed effective upon the third business day after deposit of the notice in the U.S. mail.

IF TO THE PUCT:

ATTENTION: Brian H. Lloyd, Executive Director  
1701 N. Congress Ave., 7th Floor  
Austin, TX 78701

With a copy to the PUCT Contract Administrator at the same address.

IF TO CONTRACTOR:

ATTENTION: Lark Lee, Manager  
351 Hidden Pointe  
New Braunfels, TX 78132

**19.4 Headings.** Titles and headings of paragraphs and sections within this Agreement are provided merely for convenience and shall not be used or relied upon in construing this Agreement or the Parties' intentions with respect thereto.

**19.5 Export Laws.** Contractor represents, warrants, agrees and certifies that it (a) shall comply with the United States Foreign Corrupt Practices Act (regarding, among other things, payments to government officials) and all export laws and rules and regulations of the United States Department of Commerce or other United States or foreign agency or authority and (b) shall not knowingly permit any non-Party to directly or indirectly, import, export, re-export, or transship any intellectual property or any third Party materials accessed by Contractor during the course of this Agreement in violation of any such laws, rules or regulations.

**19.6 Preprinted Forms.** The use of preprinted forms, such as purchase orders or acknowledgments, in connection with this Agreement is for convenience only and all preprinted terms and conditions stated thereon are void and of no effect. The terms of this Agreement cannot be amended, modified or altered by any conflicting preprinted terms, provisions or conditions contained in a preprinted form, such as purchase orders or acknowledgements. If any conflict exists between this Agreement and any terms and conditions on a purchase order, acknowledgment or other preprinted form, the terms and conditions of this Agreement will govern.

**19.7 Specific Personnel.** Contractor has identified the following personnel (Team) for this assignment as follows:

- Lark Lee, Tetra Tech
- Laura Schauer, Tetra Tech
- Teri Lutz, Tetra Tech
- Pam Rathbun, Tetra Tech
- Carol Sabo, Tetra Tech
- Sue Hanson, Tetra Tech
- Bryan Ward, Cadmus
- Noel Lieb, Cadmus
- Tina Jayaweera, Cadmus
- Scott Reeves, Cadmus
- Michael Messenger, Itron
- Joe Loper, Itron
- Stephan Barsun, Itron
- Katherine Johnson, Johnson Consulting
- Mike Martin, Texas A&M
- Saleem Khan, TEESI



Contractor warrants that it shall use its best efforts to avoid any changes to the Team during the course of this Agreement. Contractor will notify the PUCT within two weeks of any personnel change. Contractor will recommend to the PUCT personnel with comparable experience and required qualifications and training. The PUCT must approve any change in personnel on this project. Contractor shall provide individuals qualified to perform the tasks assigned to such individual. At the PUCT's request, Contractor shall remove from the project any individual whom the PUCT finds unacceptable. Contractor shall replace such individual with another individual satisfactory to the PUCT as soon as practicable.

**19.8 Publicity.** Contractor understands and agrees that no public disclosures or news releases pertaining to this Agreement or any results or findings based on information provided, created, or obtained to fulfill the requirements of this Agreement shall be made without prior written approval of the PUCT.

#### **Article 20. NO IMPLIED WAIVER**

The failure of any party, at any time, to enforce a provision of this contract will not constitute a waiver of that provision; will not affect the validity of this contract or any part of it; and will not affect the right of any party to enforce each and every provision.

#### **Article 21. FORCE MAJEURE**

Neither the PUCT nor Contractor will be considered in default in the performance of its obligations under this contract to the extent that the performance of such obligations is prevented or delayed by any cause beyond the reasonable control of the affected party, which such party could not, by due diligence, have avoided. Such causes, including but not limited to acts of God, severe weather, explosions, riots, acts of war, or orders of legal authority, will not relieve such party of liability in the event of its failure to use due diligence to remedy the situation and remove the cause in an adequate manner and with all reasonable dispatch and to give notice and full particulars of the same in writing to the other party as soon as possible after the occurrence of the cause that prevented or delayed performance of the obligations. If the event of Force Majeure continues for a period of more than one hundred and eighty (180) days, either party thereafter may terminate this contract upon giving at least ten days prior written notice to the other party.

#### **Article 22. SEVERABILITY**

If any provision of this contract will be held unlawful or otherwise unenforceable, such provision will be severed and deemed deleted and the remainder of this contract will continue in full force and effect, as if such provision had never existed.

#### **Article 23. ORDER OF PRECEDENCE**

In the event of conflicts or inconsistencies between the provisions of this Agreement and its attachment(s), the provisions of this Agreement will control.

#### **Article 24. FUNDING OUT**

This contract is contingent upon the continued availability of funding. If funds become unavailable through lack of appropriations, legislative or executive budget cuts, amendment of the Appropriations Act, state agency consolidations, or any other disruptions of current appropriations, provisions of the Termination Article shall apply. Any contract resulting from

this solicitation is contingent upon the continued availability of lawful appropriations by the Texas Legislature. See Section 2.24 Excess Obligations Prohibited.

**Article 25. DRUG FREE WORKPLACE POLICY**

The contractor shall comply with the applicable provisions of the Drug-Free Work Place Act of 1988(Public Law 100-690, Title V, Subtitle D; 41 U.S.C. 701 ET SEQ.) and maintain a drug-free work environment; and the final rule, government-wide requirements for drug-free work place (grants), issued by the Office of Management and Budget and the Department of Defense (32 CFR Part 280, Subpart F) to implement the provisions of the Drug-Free Work Place Act of 1988 is incorporated by reference and the contractor shall comply with the relevant provisions thereof, including any amendments to the final rule that may hereafter be issued.

**Article 26. ENTIRE AGREEMENT**

This contract constitutes the entire agreement and understanding between the parties with regard to its subject matter and supersedes and merges all prior discussions, writings, negotiations, understandings, and agreements concerning the provision of these services.

In WITNESS WHEREOF both parties by their duly authorized representatives have executed this contract.

The Public Utility Commission of Texas

Tetra Tech MA, Inc.

By: B. H. Lloyd

By: B. Brandreth

Brian H. Lloyd  
Executive Director

Bonnie Brandreth  
Vice-President

Date Signed: 2-14-13

Date Signed: 2/15/13

PUC General Law

Approved: L. E. Flores



**TETRA TECH**

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# **Public Utility Commission of Texas**

**Proposal in Response to**

**RFP Number 473-13-00105**

**Project Number 40891**

**January 14, 2013: Best and Final Offer**



**CADMUS**

**Itron**



**Johnson**  
CONSULTING GROUP

**TCAT** ★ Texas Center for  
Applied Technology  
*Designed to make a difference*

**TEXAS A&M** ★  
**ENGINEERING**

 **TEXAS  
ENERGY  
ENGINEERING  
SERVICES, INC.**  
[www.teesi.com](http://www.teesi.com)





# **Public Utility Commission of Texas**

**Proposal in Response to**

**RFP Number 473-13-00105**

**Project Number 40891**

**January 14, 2013: Best and Final Offer**

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## 1. RESPONSE TO REQUEST FOR BEST AND FINAL OFFER

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This section represents the Tetra Tech team's response to the Public Utilities Commission of Texas' (PUCT) invitation to submit a Best and Final Offer ("BAFO") of the Compensation and Budgets Section of our proposal.

### 1.1 CLARIFICATIONS

Below we provide additional clarifications as requested by the PUCT.

**Please describe the minimum level of effort that will be used for every program for each utility.**

For each program, the Tetra Tech team will complete, at a minimum, the following activities for each utility and program:

*Program staff interviews.* We will use program staff interviews to get a full understanding of all programs for all utilities. These interviews will allow the Tetra Tech team to identify additional researchable issues; understand key information regarding program operations; understand data tracking processes, format, and savings calculations; and identify utility-specific M&V protocols and activities.

*Program tracking data review.* The program tracking data review will assess the completeness and quality of data entered, that values are consistent with approved deemed values and/or calculation methodologies, and that reported savings are calculating correctly.

*Desk reviews of a sample of projects.* With the exception of Load Management programs<sup>1</sup>, all utilities' program evaluations will include additional desk reviews. The desk reviews will have two functions, depending on the program and project. First, they will provide an independent check that the information in the program tracking system is consistent with the information in the application materials and that relevant information is captured. Second, the Tetra Tech team will review assumptions, calculations and, if available, resulting M&V results, which will be particularly important for more complex projects.

These three activities will directly inform where additional EM&V is most needed based on uncertainty and/or scale of savings. The Tetra Tech team will then provide *primary data collection from market actors and customers* for all utilities' energy efficiency programs. Market actor surveys are planned for all energy

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<sup>1</sup> The program tracking data review for each load management program will include review of equations and any metering requirements used to estimate the baseline usage and resulting level of load curtailment achieved for each event with the goal of producing verified peak demand savings at program level. Due to the depth of the program tracking data review, additional desk reviews are not needed for these programs.



efficiency programs to understand market conditions, inform net-to-gross research, and assess processes and issues that may impact current and future savings, amongst other purposes defined at the program level. Customer surveys—which will be conducted for all energy efficiency programs at all utilities in the form of telephone, mail, and/or on-site data verification—will be used to verify installations, calculate net-to-gross ratios, and verify key assumptions and parameter values.

**Please list all assumptions for the number of technologies/measures for residential and commercial programs that you plan to include in the Technical Reference Manual (TRM).**

The Tetra Tech team made a number of assumptions when developing the TRM level of effort and budget included in this BAFO. First, we assumed that the 2013 year TRM will include 50 measure entries, with approximately half of the measures for nonresidential applications and the remaining half for residential applications. Second, the costs per measure to develop entries for the TRM are expected to range from roughly \$5,000–\$10,000, which translates to roughly 40 to 60 staff hours per measure. Last, in regards to the type of measures included, we expect the measures to range across different technologies such as lighting; heating, ventilation and air conditions (HVAC); thermal envelope; motors and variable frequency drives (VFDs); commercial refrigeration; and control systems, to name a few.

To further illustrate the process, the TRM budget in Calendar Year 2013 is based on completing the following three tasks:

1. Task 1 includes review of all existing deemed savings tables and TRMs developed by the utility program administrators in Texas, comparison of measure input values in Texas to measure inputs from TRMs in other jurisdictions, and development of recommended measure parameter or equation updates. This task also includes interviews with the contractor that has developed deemed savings in Texas.
2. Task 2 includes a Draft and Final TRM Approach document to be completed at the beginning of the evaluation period. This approach document will include a recommended process to decide which measures should be included in the Texas TRM, the criteria to be used to decide which data sources are likely to produce the most accurate and robust savings estimates for Texas, and the recommended frequency and process for adopting measure or TRM updates. The Draft TRM approach document will be presented at workshops and will be revised based on comments received from stakeholders.
3. Task 3 results in a Draft and Final TRM database that will include all recommended savings parameters and equations needed to produce deemed energy and peak savings estimates for the TRM measures, source documentation, and recommended update plans for each measure or measure group. The database will include standardized reference tables such as standard wattage tables for lighting measures to allow users to easily calculate energy and peak savings.





The assumptions in the TRM budget in Calendar Year 2014 involve completing two additional tasks:

4. Task 4 focuses on the review of petitions submitted to the Energy Efficiency Implementation Project (EEIP) to modify or add new measures and/or program EM&V protocols to the TRM and developing recommendations for revised parameter values or energy saving algorithms.

5. Task 5 will be to produce Version 2.0 of the Texas TRM to include deemed saving values or equations for up to ten new technologies/measures and make any recommended changes to existing TRM inputs for up to ten technologies based on evaluation results of 2012 programs and ongoing data collection in 2013 and 2014.

Please note that the Tetra Tech team has developed a revised budget for the development and maintenance of a TRM based on further prioritization within this task for this BAFO. This re-prioritization allows us to increase the number of desk reviews, customer surveys, and on-site visits to verify installation and savings claims, as discussed below. We have reduced our original TRM budget by approximately one-third across the two program years. This reduction reflects a decrease in the assumed number of entries to be incorporated into the TRM from approximately 70 to the 50 measures discussed above.

## 1.2 DATA COLLECTION ACTIVITY CHANGES

Tables 1A and 1B below summarize our team's proposed data collection activities for the evaluation of the utilities' 2012 and 2013 programs, respectively. Our budget is consistent with these activities. We have increased on-site M&V to a total of 665 on-site verification visits, with 315 of those visits including on-site metering beyond spot metering. The site visits are set to meet a minimum 80/20 level of confidence and precision for verification of measures for program year 2013. A limited number of on-sites are included in our program year 2012 budget due to the compressed timeline. These 2012 on-sites will be directed to areas of the largest uncertainty and used to inform the program year 2013 data collection.

The increased on-site M&V was accomplished within our original budget amount by refocusing the TRM effort as discussed above; eliminating non-participant surveys; decreasing the level of effort for: evaluation prioritization and planning, the load management programs' evaluations, and senior staff reviewer time; and by completing desk reviews, participant surveys, and on-site M&V for the Residential Standard Offer and Low-income/Hard-to-Reach programs instead of large-scale billing analyses within the first two program years as originally proposed. On the latter point, we believe the large-scale billing analysis is the optimal approach for improving savings estimates for the comprehensive residential program offerings. However, by first conducting customer surveys and on-site M&V, this revised scope will allow the evaluation team to identify issues with the programs and/or potential explanatory factors that may be useful to conduct the billing analysis in extension years, recommended for program year 2014. If it is agreed



the billing analysis will provide sufficient value in program year 2014, the evaluation team will use program year 2013 to set up protocols with the PUCT and the utilities to collect information necessary for the billing analysis.

Tetra Tech	- Bidder Name
1-14-13	- Date Prepared

**Table 1: Activities Estimate**  
**Request for Proposals PUCT Evaluation**  
**Contractor 2012**

1.A: Program Year 2012						
	Partici- pant Surveys	Non- Partici- pant Surveys	Market Actor Surveys	Desk Reviews	Site Verifica- -tion	On-Site Metering
American Electric Power (includes AEP TCC, TNC, and SWEPCO)						
Commercial SOPs	27		3	10	2	1
Residential and Small Commercial SOPs			6	21		
Low Income SOPs			12	38		
Load Management SOPs			1			
Market Transformation Programs	16	-	13	10	2	1
Pilot Programs	4	-	1	5	-	-
Center Point Energy						
Commercial SOPs	75		9	19	5	5
Residential and Small Commercial SOPs			1	10		
Low Income SOPs			1	10		
Load Management SOPs			1			
Market Transformation Programs	25	-	13	152	2	2
Pilot Programs	7	-	6	5	-	-





### El Paso Electric

Commercial SOPs  
Residential and Small Commercial  
SOPs  
Low Income SOPs  
  
Load Management SOPs  
  
Market Transformation Programs  
  
Pilot Programs  
  
Self-Delivered Programs

### Entergy

Commercial SOPs  
Residential and Small Commercial  
SOPs  
  
Low Income SOPs  
  
Load Management SOPs  
  
Market Transformation Programs  
  
Pilot Programs  
  
Self-Delivered Programs

### ONCOR

Commercial SOPs  
Residential and Small Commercial  
SOPs  
  
Low Income SOPs  
  
Load Management SOPs  
  
Market Transformation Programs  
  
Pilot Programs

### TNMP

Commercial SOPs

4			10		
		1			
10	-	5	75	-	-
1	-	-	5	-	-
-	-	-	-	-	-
		1	10		
		1	10		
		1			
10	-	5	10	-	-
8	-	2	5	-	-
-	-	-	-	-	-
128		15	33	5	3
		1	36		
		2	87		
		1			
40	-	15	21	2	2
-	-	-	-	-	-
1					





Residential and Small Commercial  
SOPs

Low Income SOPs

Load Management SOPs

Market Transformation Programs

Pilot Programs

**SPS (Xcel) Energy**

Commercial SOPs

Residential and Small Commercial  
SOPs

Low Income SOPs

Load Management SOPs

Market Transformation Programs

Pilot Programs

Self-Delivered Programs

**Sharyland Utilities**

Commercial SOPs

Residential and Small Commercial  
SOPs

Low Income SOPs

Load Management SOPs

Market Transformation Programs

Pilot Programs

Self-Delivered Programs

			1	10		
			3	10		
			1			
6	-		3	10	-	-
-	-		-	-	-	-
11			1	10		
			1	10		
			2	10		
			1			
-	-		-	-	-	-
-	-		-	-	-	-
5			1	10		
			1	10		
			2	10		
			1			
1	-		1	10	-	-
-	-		-	-	-	-





**American Electric Power (includes  
AEP TCC, TNC, and SWEPCO)**

Commercial SOPs  
Residential and Small Commercial  
SOPs

Low Income SOPs  
Load Management SOPs

Market Transformation Programs

Pilot Programs

**Center Point Energy**

Commercial SOPs  
Residential and Small Commercial  
SOPs

Low Income SOPs  
Load Management SOPs

Market Transformation Programs

Pilot Programs

**El Paso Electric**

Commercial SOPs  
Residential and Small Commercial  
SOPs

Low Income SOPs

Load Management SOPs

Market Transformation Programs

<b>1.B: Program Year 2013</b>					
Partici- pant Surveys	Non- Partici- pant Surveys	Market Actor Surveys	Desk Reviews	Site Verifica- tion	On-Site Meterin g
50		3	50	25	25
50	0	6	50	25	5
30		6	30	15	5
0					
80	0	14	40	20	12
10	-	1	5	2	2
75		9	60	30	30
70	0	16	70	40	10
30		2	30	15	5
0					
84	0	30	80	66	25
143	0	2	30	15	5
20			20	10	5
30	0		30	15	5
20			20	10	2
-					
20	0	5	20	10	5





Pilot Programs

10	-	1	10	5	5
----	---	---	----	---	---

Self-Delivered Programs

-	-	-	-	-	-
---	---	---	---	---	---

### Entergy

Commercial SOPs

Residential and Small Commercial  
SOPs

10	0	4	10	5	2
----	---	---	----	---	---

Low Income SOPs

Load Management SOPs

10		2	10	5	
0					

Market Transformation Programs

38	0	7	18	15	5
----	---	---	----	----	---

Pilot Programs

18	-	2	18	16	5
----	---	---	----	----	---

Self-Delivered Programs

-	-	-	-	-	-
---	---	---	---	---	---

### ONCOR

Commercial SOPs

Residential and Small Commercial  
SOPs

128		15	78	35	35
70	0	10	70	40	10

Low Income SOPs

Load Management SOPs

30		4	30	15	5
0					

Market Transformation Programs

141	0	15	80	66	25
-----	---	----	----	----	----

Pilot Programs

-	-	-	-	-	-
---	---	---	---	---	---

### TNMP

Commercial SOPs

Residential and Small Commercial  
SOPs

20			20	10	5
30	0	4	30	15	5

Low Income SOPs

Load Management SOPs

20		6	20	10	2
0					

Market Transformation Programs

20	0	2	20	10	5
----	---	---	----	----	---

Pilot Programs

5	-	-	10	5	5
---	---	---	----	---	---





### SPS (Xcel) Energy

Commercial SOPs  
Residential and Small Commercial  
SOPs

Low Income SOPs  
Load Management SOPs

Market Transformation Programs

Pilot Programs

Self-Delivered Programs

### Sharyland Utilities

Commercial SOPs  
Residential and Small Commercial  
SOPs

Low Income SOPs  
Load Management SOPs

Market Transformation Programs

Pilot Programs

Self-Delivered Programs

20		1	20	10	5
30	0	4	30	15	5
20		4	20	10	2
0					
20	0	1	10	5	5
-	-	-	-	-	-
		1	5	2	2
20		1	20	10	5
30	0	4	30	15	5
20		4	20	10	2
0					
20	0	1	20	10	5
5	-	-	10	5	5
10		1	10	5	5

## 1.3 ACTIVITIES BY PROGRAM YEAR

We have given considerable thought to the preliminary allocation of EM&V activities by utilities and their portfolios considering the prioritization elements discussed in our proposal. We note that in order to meet the objectives and reporting requirements detailed within the RFP, all of the activities for evaluating 2012 programs, and about 75 percent of the activities for evaluating 2013 programs, will be completed in calendar year 2013. Activities in 2014 will include targeted M&V efforts to ensure representation of the last quarter of the 2013 program year. Proposed activities include:

- Program tracking data reviews for all programs and desk reviews for all programs (with the exception of Load Management Standard Offer) and utilities, which will inform the data collection activities.



- Sufficient program and market actor interviews and customer surveys in 2013 to represent utility-level energy efficiency impacts, identify high-level process findings, and determine net-to-gross ratios.
- Engineering simulations for prioritized programs as identified in Division 3 to estimate verified and net savings estimates in 2013.
- Development of the TRM in 2013, with an update taking place in 2014 based on EM&V results and the identification of additional technologies and programs.
- The development of the EM&V database.
- Interim and final reporting, including cost-effectiveness tests, within the timeframe prescribed by the PUCT.
- Regular meetings with the PUCT and utilities and collaboration with all parties.

#### **1.4 LABOR CLASSIFICATIONS AND RATES BY CALENDAR YEAR**

Table 2 presents labor categories, named staff, and rates by firm. Quoted labor rates of Tetra Tech and its subcontractors are fully burdened (inclusive of all direct costs and profit). Because of the importance of this project to us, Tetra Tech has asked every organization on the team to provide “most-favored client” 2013 rates on this bid and to hold those rates constant for 2014. Although we offered our most-favored client competitive rates in our original budget, we have further reduced the hourly rate for the proposed project manager and the other key senior personnel who are critical for the successful delivery of this project and are again holding those rates constant for the PUCT for 2014.

Tetra Tech has chosen the proposed subcontractors based upon their knowledge of the subject matter of this RFP and experience and reputation in the marketplace. To support the development of best practices program evaluation infrastructure in Texas, we have included staff from Texas Energy Engineering Services (TEESI) and Texas A&M’s Texas Center for Applied Technology, as well as Tetra Tech’s San Antonio office. We are also proud to note that TEESI is HUB/COA-MBE/DBE certified in Texas, and Johnson Consulting Group is nationally registered as a women-owned business.





**Table 2. Billing Rates**

Staff			Rate, \$/hour		
Job Title	Employee Name(s)	Prime or Sub-Contractor	2013	2014	2-year Billing Rates Averages 2013-2014
Director	L. Lee, L. Schauer, P. Rathbun, C. Sabo, P. Krecker	Tetra Tech	\$230	\$230	\$230
Manager	T. Lutz, K. Baslock, K. Bakalars, C. Koenig, S. Hanson	Tetra Tech	\$200	\$200	\$200
Sr. Associate	L. Obear, J. Hoechst, T. Holmes, S. Drake	Tetra Tech	\$175	\$175	\$175
Associate	C. Conrad, D. Belknap, M. Pom, P. Wood, S. Trader	Tetra Tech	\$150	\$150	\$150
Support Associate	D. Frazer, C. King, A. Cabell, M. Stark	Tetra Tech	\$135	\$135	\$135
Admin Support	T. Stevens, S. Wagner	Tetra Tech	\$135	\$135	\$135
Survey Manager	G. Zimmerman	Tetra Tech	\$105	\$105	\$105
Division Vice President	S. Khawaja	Cadmus	\$240	\$240	\$240
Vice President	B. Ward	Cadmus	\$235	\$235	\$235
Principal	T. Jayaweera	Cadmus	\$225	\$225	\$225
Sr. Associate	N. Lieb, TBD	Cadmus	\$185	\$185	\$185
Associate	S. Reeves, TBD	Cadmus	\$160	\$160	\$160
Application Developer	TBD	Cadmus	\$150	\$150	\$150
Sr. Analyst	TBD	Cadmus	\$140	\$140	\$140
Analyst	TBD	Cadmus	\$125	\$125	\$125
Research Analyst	TBD	Cadmus	\$100	\$100	\$100





Staff			Rate, \$/hour		
Job Title	Employee Name(s)	Prime or Sub-Contractor	2013	2014	2-year Billing Rates Averages 2013-2014
Administrative II	TBD	Cadmus	\$75	\$75	\$75
Administrative I	TBD	Cadmus	\$55	\$55	\$55
Sr. Director	J. Cavalli	Itron	\$240	\$240	\$240
Sr. Principal Energy Consultant	D. Hanna, M. Messenger	Itron	\$231	\$231	\$231
Principal Energy Consultant	J. Loper, C. Ehrlich, B. Ramirez, C. Elliot, S. Barsun, M. Ting	Itron	\$221	\$221	\$221
Sr. Energy Engineer I/ Sr. Economist I	V. Tirumaleddy, M. Du	Itron	\$190	\$190	\$190
Energy Consultant II	A. Khursheed	Itron	\$179	\$179	\$179
Consulting Engineer I	W. Marin	Itron	\$163	\$163	\$163
Energy Engineer I	B. Cheah	Itron	\$153	\$153	\$153
Sr. Energy Analyst II	C. Murphy, S. Weiss	Itron	\$143	\$143	\$143
Energy Analyst I	TBD	Itron	\$121	\$121	\$121
President	K. Johnson	Johnson Consulting	\$170	\$170	\$170
Research Engineer	J. Wall, D. Schneider, M. Koch	Texas A&M	\$230	\$230	\$230
Associate Research Engineer	M. Martin	Texas A&M	\$153	\$153	\$153
Project Manager	S. Mills	Texas A&M	\$119	\$119	\$119
Associate Research Scientist	D. Gabriel	Texas A&M	\$114	\$114	\$114





Staff			Rate, \$/hour		
Job Title	Employee Name(s)	Prime or Sub-Contractor	2013	2014	2-year Billing Rates Averages 2013-2014
Research Engineer & Assistant Director	S. Stuver	Texas A&M	\$110	\$110	\$110
Research Engineering Associate III	R. Berry	Texas A&M	\$83	\$83	\$83
Assistant Research Scientist	A. Gabriel	Texas A&M	\$81	\$81	\$81
Program Specialist I	M. Trevino	Texas A&M	\$44	\$44	\$44
Principal	S. Khan	TEESI	\$150	\$150	\$150
Engineering II	T. Glass, H. Chau	TEESI	\$140	\$140	\$140
Project Manager III	J. Gomez	TEESI	\$140	\$140	\$140
Project Coordinator/Engineer I	M. Bible	TEESI	\$120	\$120	\$120
Engineer I/Sr. Designer	R. Grahm	TEESI	\$115	\$115	\$115
Engineer/Designer	TBD	TEESI	\$95	\$95	\$95
Jr. Engineer/Jr. Designer	TBD	TEESI	\$85	\$85	\$85
Sr. CAD Mgr./Sr. Tech.	R. Shirley	TEESI	\$78	\$78	\$78
CAD Designer/Tech.	TBD	TEESI	\$65	\$65	\$65
Jr. Technician	TBD	TEESI	\$55	\$55	\$55
Office Administrator	H. Bryant	TEESI	\$48	\$48	\$48



Staff			Rate, \$/hour		
Job Title	Employee Name(s)	Prime or Sub-Contractor	2013	2014	2-year Billing Rates Averages 2013-2014
Engineer Aid/Intern	J. Charles	TEESI	\$42	\$42	\$42
Office Clerk	TBD	TEESI	\$26	\$26	\$26
Markup (percent) on subcontractor labor and materials/directs:					4%

#### 1.4.1 Overall summary of costs by calendar year and firm

Through a combination of the scope changes discussed above and rate reductions, we are pleased to be able to substantially increase the number of desk reviews, participant telephone surveys and on-site M&V included in our proposal as well as offer a reduced total estimated cost for the complete evaluation effort of \$5,688,417 reduced more than \$67,000 from our original budget of \$5,755,793 (total budgets by year are \$4,287,696 for calendar year 2013 and \$1,400,721 for calendar year 2014). To facilitate review of our costs, Tables 3A and 3B present summaries of the total costs for calendar years 2013 and 2014 by firm. These costs are consistent with the timelines and activities described in our proposal and presented in Tables 1A and 1B above.

Tables 3A, 3B, and 3C provide total material, labor hours, and costs by firm for calendar year 2013, calendar year 2014, and a combined total for both calendar years, respectively. These tables are followed by detailed tables that present each firm's material costs, staff labor rates, level of effort, labor costs, assumed number of units and per units costs, and other direct costs as requested in the RFP. For each firm we present calendar year 2013, 2014, and the combined 2013 and 2014 budgets (Tables 3A-1 through 3C-6).





**Table 3A: Total Calendar Year 2013 Hours and Costs by Firm**

Task #	Task	Material Costs	Estimated Hours Per Firm (CY2013)						Total Hours	Cost using 2013 billing rates & per unit costs from tables below
			Tetra Tech	Cadmus	Itron	Johnson Consulting	Texas A&M	TEESI		
Task #	Task Title									
1A	Evaluation Prioritization Memo	\$1,500	300	132	107	12	-	-	551	\$121,379
1B	2012 and 2013 Portfolios' EM&V Plan	\$1,500	510	204	367	12	16	40	1,149	\$239,913
1C	Other Planning Documents	\$0	240	256	-	-	32	40	568	\$99,943
2	Develop and Maintain TRM	\$0	-	862	600	40	-	-	1,502	\$243,250
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	\$0
3A	Primary Data Collection	\$0	2,317	678	1,802	-	165	134	5,096	\$1,436,702
3B	Analysis and Desk Reviews	\$0	1,066	2,154	685	-	96	96	4,097	\$657,913
3C	Other: program tracking, database development, cost-effectiveness testing	\$0	1,248	1,834	281	-	-	-	3,363	\$554,773
4A/C	Additional Activities: process, regulatory support, collaborative meetings	\$1,500	729	778	40	-	-	-	1,547	\$247,445
4B	Additional Activities: optional residential baseline study	\$0	0	-	-	-	-	-	0	\$0
5	Project Management and Reporting	\$1,500	2,011	493	171	160	142	160	3,137	\$583,921
	Subtotals	\$6,000	8,421	7,391	4,053	224	451	470	21,010	\$4,185,238
	Markup on subcontractor labor and materials/directs: 4%									\$102,458
	Total									\$4,287,696

**Table 3B: Total Calendar Year 2014 Hours and Costs by Firm**

Task #	Task	Material Costs	Estimated Hours Per Firm (CY2014)						Total Hours	Cost using 2014 billing rates & per unit costs from tables below
			Tetra Tech	Cadmus	Itron	Johnson Consulting	Texas A&M	TEESI		
Task #	Task Title									
1A	Evaluation Prioritization Memo	\$0	-	-	125	10	-	-	135	\$29,325
1B	2012 and 2013 Portfolios' EM&V Plan	\$0	-	-	60	10	-	-	70	\$13,800
1C	Other Planning Documents	\$0	-	-	-	-	16	-	16	\$2,100
2	Develop and Maintain TRM	\$0	0	568	550	24	-	-	1,142	\$186,310
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	\$0
3A	Primary Data Collection	\$0	195	-	590	-	93	60	938	\$249,201
3B	Analysis and Desk Reviews	\$0	547	570	733	-	62	48	1,960	\$325,663
3C	Other: program tracking, database development, cost-effectiveness testing	\$0	187	200	259	-	-	10	656	\$117,003
4A/C	Additional Activities: process, regulatory support, collaborative meetings	\$1,000	380	40	32	-	-	-	452	\$93,302
4B	Additional Activities: optional residential baseline study	\$0	0	-	-	-	-	-	0	\$0
5	Project Management and Reporting	\$3,000	918	433	284	60	64	80	1,839	\$346,420
	Subtotals	\$4,000	2,227	1,811	2,633	104	235	198	7,208	\$1,363,124
	Markup on subcontractor labor and materials/directs: 4%									\$37,597
	Total									\$1,400,721



**Table 3C: Total Calendar Year 2013 and 2014 Hours and Costs by Firm**

Task #	Task Title	Material Costs	Estimated Hours Per Firm (CY2013 + CY2014)						Total Hours	Cost using 2013 + 2014 billing rates & per unit costs from tables below
			Tetra Tech	Cadmus	Itron	Johnson Consulting	Texas A&M	TEESI		
1A	Evaluation Prioritization Memo	\$1,500	300	132	232	22	-	-	686	\$150,704
1B	2012 and 2013 Portfolios' EM&V Plan	\$1,500	510	204	427	22	16	40	1,219	\$253,713
1C	Other Planning Documents	\$0	240	256	-	-	48	40	584	\$102,042
2	Develop and Maintain TRM	\$0	0	1,430	1,150	64	-	-	2,644	\$429,560
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	\$0
3A	Primary Data Collection	\$0	2,512	678	2,392	-	258	194	6,034	\$1,685,902
3B	Analysis and Desk Reviews	\$0	1,613	2,724	1,418	-	158	144	6,057	\$983,576
3C	Other: program tracking, database development, cost-effectiveness testing	\$0	1,435	2,034	540	-	-	10	4,019	\$671,776
4A/C	Additional Activities: process, regulatory support, collaborative meetings	\$2,500	1,109	818	72	-	-	-	1,999	\$340,747
4B	Additional Activities: optional residential baseline study	\$0	0	-	-	-	-	-	0	\$0
5	Project Management and Reporting	\$4,500	2,929	926	455	220	206	240	4,976	\$930,341
	<b>Subtotals</b>	\$10,000	10,648	9,202	6,686	328	686	668	28,218	\$5,548,362
	Markup on subcontractor labor and materials/directs: 4%									\$140,055
	<b>Total</b>									\$5,688,417

**Table 3A-1: Calendar Year 2013 Hours and Costs for Tetra Tech**

	Task	Material Costs	Estimated Hours Per Job Title (CY2013)							Estimated Units Per Task (CY2013)				Total Hours	Total Survey Units	Cost Using 2013 billing rates
			Director	Manager	Sr. Associate	Associate	Support Associate	Admin Support	Survey Manager	Participant Res. Surveys	Non-Part. Res. Baseline Surveys	Participant Non-Res. Surveys	Non-Part. Non-Res. Surveys			
Task #	Task Title	PAID	\$230	\$200	\$175	\$150	\$135	\$135	\$105	\$46	\$49	\$68	\$89			
1A	Evaluation Prioritization Memo	\$1,500	264	16	20	-	-	-	-	-	-	-	-	300	-	\$68,920
1B	2012 and 2013 Portfolios' EM&V Plan	\$1,500	340	80	90	-	-	-	-	-	-	-	-	510	-	\$111,450
1C	Other Planning Documents	\$0	80	70	90	-	-	-	-	-	-	-	-	240	-	\$48,223
2	Develop and Maintain TRM	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
3A	Primary Data Collection	\$0	317	100	300	700	600	-	300	871	-	965	-	2,317	1,836	\$468,596
3B	Analysis and Desk Reviews	\$0	145	114	340	377	91	-	-	-	-	-	-	1,066	-	\$184,360
3C	Other: program tracking, database development, cost-effectiveness testing	\$0	160	259	364	374	91	-	-	-	-	-	-	1,248	-	\$220,680
4A/C	Additional Activities: process, regulatory support, collaborative meetings, resource planning	\$1,500	200	122	175	72	120	-	40	-	-	-	0	729	0	\$133,655
4B	Additional Activities: optional residential baseline study	\$0	0	-	0	-	0	-	0	-	0	-	-	0	0	\$0
5	Project Management and Reporting	\$1,500	746	392	437	72	-	364	-	-	-	-	-	2,011	-	\$387,906
	Totals	\$6,000	2,252	1,153	1,816	1,594	902	364	340	871	0	965	-	8,421	1,836	\$1,623,790





**Table 3B-1: Calendar Year 2014 Hours and Costs for Tetra Tech**

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (CY2014)							Estimated Units Per Task (CY2014)				Total Hours	Total Survey Units	Cost Using 2014 billing rates
			Director	Manager	Sr. Associate	Associate	Support Associate	Admin Support	Survey Manager	Participant Res. Surveys	Non-Part. Res. Baseline Surveys	Participant Non-Res. Surveys	Non-Part. Non-Res. Surveys			
			\$230	\$200	\$175	\$150	\$135	\$135	\$105	\$46	\$49	\$68	\$89			
1A	Evaluation Prioritization Memo 2012 and 2013	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
1B	Portfolios' EM&V Plan	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
1C	Other Planning Documents	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
2	Develop and Maintain TRM	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
3A	Primary Data Collection	\$0	90	25	80	-	-	-	-	-	-	-	-	195	-	\$39,782
3B	Analysis and Desk Reviews	\$0	55	32	200	230	30	-	-	-	-	-	-	547	-	\$92,496
3C	Other: program tracking, database development, cost-effectiveness testing	\$0	35	10	97	15	30	-	-	-	-	-	-	187	-	\$33,380
4A/C	Additional Activities: process, regulatory support, collaborative meetings, resource planning	\$1,000	150	100	70	60	-	-	-	-	-	-	-	380	-	\$76,750
4B	Additional Activities: optional residential baseline study	\$0	-	0	0	0	-	-	-	-	-	-	-	0	-	\$0
5	Project Management and Reporting	\$3,000	382	178	146	12	-	200	-	-	-	-	-	918	-	\$180,786
	<b>Totals</b>	<b>\$4,000</b>	<b>712</b>	<b>345</b>	<b>593</b>	<b>317</b>	<b>61</b>	<b>200</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,227</b>	<b>-</b>	<b>\$423,194</b>

**Table 3C-1: Calendar Year 2013 and 2014 Budgets for Tetra Tech**

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (CY2013 + CY2014)							Estimated Units Per Task (CY2013 + CY2014)				Total Hours	Total Survey Units	Cost Using 2013 + 2014 billing rates
			Director	Manager	Sr. Associate	Associate	Support Associate	Admin Support	Survey Manager	Participant Res. Surveys	Non-Part. Res. Baseline Surveys	Participant Non-Res. Surveys	Non-Part. Non-Res. Surveys			
1A	Evaluation Prioritization Memo 2012 and 2013	\$1,500	264	16	20	-	-	-	-	-	-	-	-	300	-	\$68,920
1B	Portfolios' EM&V Plan	\$1,500	340	80	90	-	-	-	-	-	-	-	-	510	-	\$111,450
1C	Other Planning Documents	\$0	80	70	90	-	-	-	-	-	-	-	-	240	-	\$48,223
2	Develop and Maintain TRM	\$0	0	-	-	-	-	-	-	-	-	-	-	0	-	\$0
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
3A	Primary Data Collection	\$0	407	125	380	700	600	-	300	871	-	965	-	2,512	1,836	\$508,378
3B	Analysis and Desk Reviews	\$0	199	146	540	607	121	-	-	-	-	-	-	1,613	-	\$276,856
3C	Other: program tracking, database development, cost-effectiveness testing	\$0	195	269	461	389	121	-	-	-	-	-	-	1,435	-	\$254,060
4A/C	Additional Activities: process, regulatory support, collaborative meetings, resource planning	\$2,500	350	222	245	132	120	-	40	-	-	-	0	1,109	0	\$210,405
4B	Additional Activities: optional residential baseline study	\$0	0	0	0	0	0	-	0	-	0	-	-	0	0	\$0
5	Project Management and Reporting	\$4,500	1,128	570	582	84	-	564	-	-	-	-	-	2,929	-	\$568,692
	<b>Totals</b>	<b>\$10,000</b>	<b>2,964</b>	<b>1,498</b>	<b>1,409</b>	<b>1,911</b>	<b>963</b>	<b>564</b>	<b>340</b>	<b>871</b>	<b>0</b>	<b>965</b>	<b>-</b>	<b>10,648</b>	<b>1,836</b>	<b>\$2,046,984</b>





**Table 3A-2: Calendar Year 2013 Hours and Costs for Cadmus**

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (CY2013)											Total Hours	Cost Using 2013 billing rates
			Division Vice President	Vice President	Principal	Sr. Associate	Associate	Application Developer	Sr. Analyst	Analyst	Research Analyst	Administrative II	Administrative I		
			\$240	\$245	\$225	\$185	\$160	\$150	\$140	\$125	\$100	\$75	\$55		
1A	Evaluation Prioritization Memo	\$0	-	40	60	12	-	-	-	-	-	20	-	132	\$26,620
1B	2012 and 2013 Portfolios' EM&V Plan	\$3,306	-	40	20	24	48	-	-	48	-	24	-	204	\$37,126
1C	Other Planning Documents	\$0	-	16	44	40	56	-	-	80	-	20	-	256	\$41,520
2	Develop and Maintain TRM	\$0	-	40	50	32	200	-	240	260	-	-	40	862	\$126,870
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	-	-	-	-	-	\$0
3A	Primary Data Collection	\$0	-	26	32	48	192	40	180	160	-	-	-	678	\$104,110
3B	Analysis and Desk Reviews	\$0	8	68	64	248	492	24	664	586	-	-	-	2,154	\$326,710
3C	Other: program tracking, database development, cost-effectiveness testing	\$0	-	24	8	392	392	402	4	612	-	-	-	1,834	\$280,040
4A/C	Additional Activities: process, regulatory support, collaborative meetings, resource planning	\$0	-	34	32	28	88	-	140	196	260	-	-	778	\$104,550
4B	Additional Activities: optional residential baseline study	\$0	-	-	-	-	-	-	-	-	-	-	-	-	\$0
5	Project Management and Reporting	\$2,446	18	60	124	60	80	-	60	60	-	31	-	493	\$90,891
	<b>Totals</b>	<b>\$5,752</b>	<b>26</b>	<b>348</b>	<b>434</b>	<b>884</b>	<b>1,548</b>	<b>466</b>	<b>1,288</b>	<b>2,002</b>	<b>260</b>	<b>95</b>	<b>40</b>	<b>7,391</b>	<b>\$1,138,437</b>

**Table 3B-2: Calendar Year 2014 Hours and Costs for Cadmus**

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (CY2014)											Total Hours	Cost Using 2014 billing rates
			Division Vice President	Vice President	Principal	Sr. Associate	Associate	Application Developer	Sr. Analyst	Analyst	Research Analyst	Administrative II	Administrative I		
			\$240	\$245	\$225	\$185	\$160	\$150	\$140	\$125	\$100	\$75	\$55		
1A	Evaluation Prioritization Memo	\$0	-	-	-	-	-	-	-	-	-	-	-	-	\$0
1B	2012 and 2013 Portfolios' EM&V Plan	\$0	-	-	-	-	-	-	-	-	-	-	-	-	\$0
1C	Other Planning Documents	\$0	-	-	-	-	-	-	-	-	-	-	-	-	\$0
2	Develop and Maintain TRM	\$0	-	32	60	40	120	-	160	80	-	-	76	568	\$84,200
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	-	-	-	-	-	\$0
3A	Primary Data Collection	\$0	-	-	-	-	-	-	-	-	-	-	-	-	\$0
3B	Analysis and Desk Reviews	\$0	0	24	60	48	192	-	166	80	-	-	-	570	\$91,980
3C	Other: program tracking, database development, cost-effectiveness testing	\$0	-	12	-	36	36	66	-	50	-	-	-	200	\$31,390
4A/C	Additional Activities: process, regulatory support, collaborative meetings, resource planning	\$0	-	16	24	-	-	-	-	-	-	-	-	40	\$9,160
4B	Additional Activities: optional residential baseline study	\$0	-	-	-	-	-	-	-	-	-	-	-	-	\$0
5	Project Management and Reporting	\$2,446	14	60	80	76	40	-	88	40	-	35	-	433	\$78,311
	<b>Totals</b>	<b>\$2,446</b>	<b>14</b>	<b>144</b>	<b>224</b>	<b>200</b>	<b>388</b>	<b>66</b>	<b>414</b>	<b>250</b>	<b>-</b>	<b>35</b>	<b>76</b>	<b>1,811</b>	<b>\$295,041</b>





**Table 3C-2: Calendar Year 2013 and 2014 Budgets for Cadmus**

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (CY2013 + CY2014)											Total Hours	Cost Using 2013 + 2014 billing rates
			Division Vice President	Vice President	Principal	Sr. Associate	Associate	Application Developer	Sr. Analyst	Analyst	Research Analyst	Administrative II	Administrative I		
1A	Evaluation Prioritization Memo	\$0	-	40	60	12	-	-	-	-	-	20	-	132	\$26,620
1B	2012 and 2013 Portfolios' EM&V Plan	\$3,306	-	40	20	24	48	-	-	48	-	24	-	204	\$37,126
1C	Other Planning Documents	\$0	-	16	44	40	56	-	-	80	-	20	-	256	\$41,520
2	Develop and Maintain TRM	\$0	-	72	110	72	320	-	400	340	-	-	116	1,430	\$211,070
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	-	-	-	-	-	\$0
3A	Primary Data Collection	\$0	-	26	32	48	192	40	180	160	-	-	-	678	\$104,110
3B	Analysis and Desk Reviews	\$0	8	92	124	296	684	24	830	666	-	-	-	2,724	\$418,690
3C	Other: program tracking, database development, cost-effectiveness testing	\$0	-	36	8	428	428	468	4	662	-	-	-	2,034	\$311,430
4A/C	Additional Activities: process, regulatory support, collaborative meetings, resource planning	\$0	-	50	56	28	88	-	140	196	260	-	-	818	\$113,710
4B	Additional Activities: optional residential baseline study	\$0	-	-	-	-	-	-	-	-	-	-	-	-	\$0
5	Project Management and Reporting	\$4,892	32	120	204	136	120	-	148	100	-	66	-	926	\$169,202
	<b>Totals</b>	<b>\$8,198</b>	<b>40</b>	<b>492</b>	<b>658</b>	<b>1,084</b>	<b>1,936</b>	<b>532</b>	<b>1,702</b>	<b>2,252</b>	<b>260</b>	<b>130</b>	<b>116</b>	<b>9,202</b>	<b>\$1,433,478</b>

**Table 3A-3: Calendar Year 2013 Hours and Costs for Itron**

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (CY2013)									Total Hours	Cost Using 2013 billing rates
			Sr. Director	Sr. Principal Energy Consultant	Principal Energy Consultant	Sr. Energy Engineer I / Sr. Economist I	Energy Consultant II	Consulting Engineer I	Energy Engineer I	Sr. Energy Analyst II	Energy Analyst I		
		rates	\$240	\$231	\$221	\$190	\$179	\$163	\$153	\$143	\$121		
1A	Evaluation Prioritization Memo	\$0	8	-	99	-	-	-	-	-	-	107	\$23,799
1B	2012 and 2013 Portfolios' EM&V Plan	\$3,000	8	64	180	75	40	-	-	-	-	367	\$80,857
1C	Other Planning Documents	\$0	-	-	-	-	-	-	-	-	-	-	\$0
2	Develop and Maintain TRM	\$0	-	110	70	150	-	-	180	90	-	600	\$109,580
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	-	-	-	\$0
3A	Primary Data Collection	\$4,000	-	24	288	304	80	36	300	585	185	1,802	\$302,486
3B	Analysis and Desk Reviews	\$0	8	24	196	100	80	12	-	235	30	685	\$123,124
3C	Other: program tracking, database development, cost-effectiveness testing	\$0	8	12	115	28	50	-	-	68	-	281	\$54,053
4A/C	Additional Activities: process, regulatory support, collaborative meetings	\$0	-	40	0	-	-	-	-	-	-	40	\$9,240
4B	Additional Activities: optional residential baseline study	\$0	-	-	-	-	-	-	-	-	-	-	\$0
5	Project Management and Reporting	\$0	-	40	110	18	3	-	-	-	-	171	\$37,498
	<b>Totals</b>	<b>\$7,000</b>	<b>32</b>	<b>314</b>	<b>1,058</b>	<b>675</b>	<b>253</b>	<b>48</b>	<b>480</b>	<b>978</b>	<b>215</b>	<b>4,053</b>	<b>\$740,636</b>





**Table 3B-3: Calendar Year 2014 Hours and Costs for Itron**

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (CY2014)									Total Hours	Cost Using 2014 billing rates
			Sr. Director	Sr. Principal Energy Consultant	Principal Energy Consultant	Sr. Energy Engineer I/ Sr. Economist I	Energy Consultant II	Consulting Engineer I	Energy Engineer I	Sr. Energy Analyst II	Energy Analyst I		
			\$240	\$231	\$221	\$190	\$179	\$163	\$153	\$143	\$121		
1A	Evaluation Prioritization Memo	\$0	-	-	125	-	-	-	-	-	-	125	\$27,625
1B	2012 and 2013 Portfolios' EM&V Plan	\$0	-	-	40	-	-	20	-	-	-	60	\$12,100
1C	Other Planning Documents	\$0	-	-	-	-	-	-	-	-	-	-	\$0
2	Develop and Maintain TRM	\$0	-	60	70	150	-	-	180	90	0	550	\$98,030
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	-	-	-	\$0
3A	Primary Data Collection	\$1,500	-	16	80	44	40	250	20	125	15	590	\$101,802
3B	Analysis and Desk Reviews	\$0	0	24	114	135	80	150	-	225	5	733	\$127,758
3C	Other: program tracking, database development, cost-effectiveness testing	\$0	8	16	77	80	50	-	-	28	-	259	\$50,733
4A/C	Additional Activities: process, regulatory support, collaborative meetings	\$0	-	32	0	-	-	-	-	-	-	32	\$7,392
4B	Additional Activities: optional residential baseline study	\$0	-	-	-	-	-	-	-	-	-	-	\$0
5	Project Management and Reporting	\$0	0	40	140	2	2	100	0	0	0	284	\$57,217
	<b>Totals</b>	<b>\$1,500</b>	<b>8</b>	<b>188</b>	<b>646</b>	<b>411</b>	<b>172</b>	<b>520</b>	<b>200</b>	<b>468</b>	<b>20</b>	<b>2,633</b>	<b>\$482,657</b>

**Table 3C-3: Calendar Year 2013 and 2014 Budgets for Itron**

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (CY2013 + CY2014)									Total Hours	Cost Using 2013 + 2014 billing rates
			Sr. Director	Sr. Principal Energy Consultant	Principal Energy Consultant	Sr. Energy Engineer I/ Sr. Economist I	Energy Consultant II	Consulting Engineer I	Energy Engineer I	Sr. Energy Analyst II	Energy Analyst I		
1A	Evaluation Prioritization Memo	\$0	8	-	224	-	-	-	-	-	-	232	\$51,424
1B	2012 and 2013 Portfolios' EM&V Plan	\$3,000	8	64	220	75	40	20	-	-	-	427	\$92,957
1C	Other Planning Documents	\$0	-	-	-	-	-	-	-	-	-	-	\$0
3	Develop and Maintain TRM	\$0	-	170	140	300	-	-	360	180	0	1,150	\$207,610
3A	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	-	-	-	\$0
3B	Primary Data Collection	\$5,500	-	40	368	348	120	286	320	710	200	2,392	\$404,287
3C	Analysis and Desk Reviews	\$0	8	48	310	235	160	162	-	460	35	1,418	\$250,882
4A/C	Other: program tracking, database development, cost-effectiveness testing	\$0	16	28	192	108	100	-	-	96	-	540	\$104,786
4B	Additional Activities: process, regulatory support, collaborative meetings	\$0	-	72	0	-	-	-	-	-	-	72	\$16,632
4	Additional Activities: optional residential baseline study	\$0	-	-	-	-	-	-	-	-	-	-	\$0
5	Project Management and Reporting	\$0	-	80	250	20	5	100	-	-	-	455	\$94,715
	<b>Totals</b>	<b>\$8,500</b>	<b>40</b>	<b>502</b>	<b>1,704</b>	<b>1,086</b>	<b>425</b>	<b>568</b>	<b>680</b>	<b>1,446</b>	<b>235</b>	<b>6,686</b>	<b>\$1,223,292</b>



**Table 3A-4: Calendar Year 2013 Hours and Costs for Johnson Consulting Group**

Task #	Task	Material Costs	CY2013		Cost Using 2013 billing rates
			President	Total Hours	
Task #	Task Title	rates	\$170		
1A	Evaluation Prioritization Memo	\$0	12	12	\$2,040
1B	2012 and 2013 Portfolios' EM&V Plan	\$0	12	12	\$2,040
1C	Other Planning Documents	\$0	-	-	\$0
2	Develop and Maintain TRM	\$0	40	40	\$6,800
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	\$0
3A	Primary Data Collection	\$0	-	-	\$0
3B	Analysis and Desk Reviews	\$0	-	-	\$0
3C	Other: program tracking, database development, cost-effectiveness testing	\$0	-	-	\$0
4A/C	Additional Activities: process, regulatory support, collaborative meetings, resource planning	\$0	-	-	\$0
4B	Additional Activities: optional residential baseline study	\$0	-	-	\$0
5	Project Management and Reporting	\$0	160	160	\$27,200
	Totals	\$0	224	224	\$38,080

**Table 3B-4: Calendar Year 2014 Hours and Costs for Johnson Consulting Group**

Task #	Task	Material Costs	CY2014		Cost Using 2014 billing rates
			President	Total Hours	
Task #	Task Title	rates	\$170		
1A	Evaluation Prioritization Memo	\$0	10	10	\$1,700
1B	2012 and 2013 Portfolios' EM&V Plan	\$0	10	10	\$1,700
1C	Other Planning Documents	\$0	-	-	\$0
3	Develop and Maintain TRM	\$0	24	24	\$4,080
3A	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	\$0
3B	Primary Data Collection	\$0	-	-	\$0
3C	Analysis and Desk Reviews	\$0	-	-	\$0
4A/C	Other: program tracking, database development, cost-effectiveness testing	\$0	-	-	\$0
4B	Additional Activities: process, regulatory support, collaborative meetings, resource planning	\$0	-	-	\$0
4	Additional Activities: optional residential baseline study	\$0	-	-	\$0
5	Project Management and Reporting	\$0	60	60	\$10,200
	Totals	\$0	104	104	\$17,680





**Table 3C-4: Calendar Year 2013 and 2014 Budgets for Johnson Consulting Group**

Task #	Task Title	Material Costs	CY2013 + CY2014		Cost Using 2013 + 2014 billing rates
			President	Total Hours	
1A	Evaluation Prioritization Memo 2012 and 2013	\$0	22	22	\$3,740
1B	Portfolios' EM&V Plan	\$0	22	22	\$3,740
1C	Other Planning Documents	\$0	-	-	\$0
3	Develop and Maintain TRM	\$0	64	64	\$10,880
3A	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	\$0
3B	Primary Data Collection	\$0	-	-	\$0
3C	Analysis and Desk Reviews	\$0	-	-	\$0
4A/C	Other: program tracking, database development, cost-effectiveness testing	\$0	-	-	\$0
4B	Additional Activities: process, regulatory support, collaborative meetings, resource planning	\$0	-	-	\$0
4	Additional Activities: optional residential baseline study	\$0	-	-	\$0
5	Project Management and Reporting	\$0	220	220	\$37,400
Totals		\$0	328	328	\$55,760

**Table 3A-5: Calendar Year 2013 Hours and Costs for Texas A&M**

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (CY2013)						Estimated Cost Per Unit (CY2013)		Total Hours	Total On-Sites	Cost Using 2013 billing rates
			Associate Research Engineer	Project Manager	Associate Research Scientist	Research Engineer & Assistant Director	Research Engineering Associate III	Program Specialist I	Non-Res. On-site				
			\$153	\$119	\$114	\$110	\$83	\$44	\$1,500				
1A	Evaluation Prioritization Memo 2012 and 2013	\$0	-	-	-	-	-	-	-	-	-	-	\$0
1B	Portfolios' EM&V Plan	\$0	16	-	-	-	-	-	-	16	-	-	\$2,440
1C	Other Planning Documents	\$0	16	-	-	16	-	-	-	32	-	-	\$4,199
2	Develop and Maintain TRM	\$0	-	-	-	-	-	-	-	-	-	-	\$0
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	-	-	-	\$0
3A	Primary Data Collection	\$0	-	80	-	-	-	85	218	165	218	-	\$340,300
3B	Analysis and Desk Reviews	\$0	-	36	20	40	-	-	-	96	-	-	\$10,960
3C	Other: program tracking, database development, cost-effectiveness testing	\$0	-	-	-	-	-	-	-	-	-	-	\$0
4A/C	Additional Activities: process, regulatory support, collaborative meetings, resource planning	\$0	-	-	-	-	-	-	-	-	-	-	\$0
4B	Additional Activities: optional residential baseline study	\$0	-	-	-	-	-	-	-	-	-	-	\$0
5	Project Management and Reporting	\$0	40	80	22	-	-	-	-	142	-	-	\$18,126
Totals		\$0	72	196	42	56	-	85	218	451	218	-	\$376,026





**Table 3B-5: Calendar Year 2014 Hours and Costs for Texas A&M**

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (CY2014)						Estimated Cost Per Unit (CY2014)		Total Hours	Total On-Sites	Cost Using 2014 billing rates
			Associate Research Engineer	Project Manager	Associate Research Scientist	Research Engineer & Assistant Director	Research Engineering Associate III	Program Specialist I	Non-Res. On-site				
			\$153	\$119	\$114	\$110	\$83	\$44	\$1,500				
1A	Evaluation Prioritization Memo	\$0	-	-	-	-	-	-	-	-	-	-	\$0
1B	2012 and 2013 Portfolios' EM&V Plan	\$0	-	-	-	-	-	-	-	-	-	-	\$0
1C	Other Planning Documents	\$0	8	-	-	8	-	-	-	-	16	-	\$2,100
2	Develop and Maintain TRM	\$0	-	-	-	-	-	-	-	-	-	-	\$0
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	-	-	-	\$0
3A	Primary Data Collection	\$0	-	40	-	-	-	53	53	93	53	53	\$86,617
3B	Analysis and Desk Reviews	\$0	-	16	22	24	-	-	-	62	-	-	\$7,049
3C	Other: program tracking, database development, cost-effectiveness testing	\$0	-	-	-	-	-	-	-	-	-	-	\$0
4A/C	Additional Activities: process, regulatory support, collaborative meetings, resource planning	\$0	-	-	-	-	-	-	-	-	-	-	\$0
4B	Additional Activities: optional residential baseline study	\$0	-	-	-	-	-	-	-	-	-	-	\$0
5	Project Management and Reporting	\$0	40	24	-	-	-	-	-	64	-	-	\$8,956
	<b>Totals</b>	\$0	48	80	22	32	-	53	53	235	53		\$104,722

**Table 3C-5: Calendar Year 2013 and 2014 Budgets for Texas A&M**

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (CY2013 + CY2014)						Estimated Costs (CY2013 + CY2014)		Total Hours	Total On-Sites	Cost Using 2013 + 2014 billing rates
			Associate Research Engineer	Project Manager	Associate Research Scientist	Research Engineer & Assistant Director	Research Engineering Associate III	Program Specialist I	Non-Res. On-site				
1A	Evaluation Prioritization Memo	\$0	-	-	-	-	-	-	-	-	-	-	\$0
1B	2012 and 2013 Portfolios' EM&V Plan	\$0	16	-	-	-	-	-	-	16	-	-	\$2,440
1C	Other Planning Documents	\$0	24	-	-	24	-	-	-	48	-	-	\$6,299
2	Develop and Maintain TRM	\$0	-	-	-	-	-	-	-	-	-	-	\$0
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	-	-	-	\$0
3A	Primary Data Collection	\$0	-	120	-	-	-	138	271	258	271	271	\$426,917
3B	Analysis and Desk Reviews	\$0	-	52	42	64	-	-	-	158	-	-	\$18,009
3C	Other: program tracking, database development, cost-effectiveness testing	\$0	-	-	-	-	-	-	-	-	-	-	\$0
4A/C	Additional Activities: process, regulatory support, collaborative meetings, resource planning	\$0	-	-	-	-	-	-	-	-	-	-	\$0
4B	Additional Activities: optional residential baseline study	\$0	-	-	-	-	-	-	-	-	-	-	\$0
5	Project Management and Reporting	\$0	80	104	22	-	-	-	-	206	-	-	\$27,082
	<b>Totals</b>	\$0	120	276	64	88	-	138	271	686	271		\$480,748





**Table 3A-6: Calendar Year 2013 Hours and Costs for TEESI**

	Task	Material Costs	Estimated Hours Per Job Title (CY2013)									CY2013	Total Hours	Total On-Sites	Cost Using 2013 billing rates
			Principal	Engineering II	Project Manager III	Project Coordinator I/Engineer I	Engineer I/Sr. Designer	Engineer/Designer	Sr. CAD Mgr./Sr. Tech.	Jr. Technician	Non-Res On-site Verification	Res. On-Site Verification			
Task #	Task Title	rates	\$150	\$140	\$140	\$120	\$115	\$95	\$78	\$55	\$1,500	\$550			
1A	Evaluation Prioritization Memo	\$0	-	-	-	-	-	-	-	-	-	-	-	-	\$0
1B	2012 and 2013 Portfolios' EM&V Plan	\$0	40	-	-	-	-	-	-	-	-	-	-	40	\$6,000
1C	Other Planning Documents	\$0	40	-	-	-	-	-	-	-	-	-	-	40	\$6,000
2	Develop and Maintain TRM	\$0	-	-	-	-	-	-	-	-	-	-	-	-	\$0
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	-	-	-	-	-	\$0
3A	Primary Data Collection	\$0	-	60	24	40	10	-	-	-	-	370	134	370	\$221,210
3B	Analysis and Desk Reviews	\$0	-	40	24	24	8	-	-	-	-	-	-	96	\$12,760
3C	Other: program tracking, database development, cost-effectiveness testing	\$0	-	-	-	-	-	-	-	-	-	-	-	-	\$0
4A/C	Additional Activities: process, regulatory support, collaborative meetings, resource planning	\$0	-	-	-	-	-	-	-	-	-	-	-	-	\$0
4B	Additional Activities: optional residential baseline study	\$0	-	-	-	-	-	-	-	-	-	-	-	-	\$0
5	Project Management and Reporting	\$0	80	40	-	20	20	-	-	-	-	-	-	160	\$22,300
	Totals	\$0	160	140	48	84	38	-	-	-	-	370	470	370	\$268,270

**Table 3B-6: Calendar Year 2014 Hours and Costs for TEESI**

	Task	Material Costs	Estimated Hours Per Job Title (CY2014)									CY2014	Total Hours	Total On-Sites	Cost Using 2014 billing rates:	
			Principal	Engineering II	Project Manager III	Project Coordinator /Engineer I	Engineer I/Sr. Designer	Engineer/ Designer	Sr. CAD Mgr./Sr. Tech.	Jr. Technician	Non-Res On-site Verification	Res. On-Site Verification				
Task #	Task Title	PALES	\$150	\$140	\$140	\$120	\$115	\$95	\$78	\$55	\$1,500	\$550				
1A	Evaluation Prioritization Memo	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
1B	2012 and 2013 Portfolios' EM&V Plan	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
1C	Other Planning Documents	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
2	Develop and Maintain TRM	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
3A	Primary Data Collection	\$0	-	20	12	20	8	-	-	-	-	-	24	60	24	\$21,000
3B	Analysis and Desk Reviews	\$0	-	20	12	12	4	-	-	-	-	-	-	48	-	\$6,380
3C	Other: program tracking, database development, cost-effectiveness testing	\$0	10	-	-	-	-	-	-	-	-	-	-	10	-	\$1,500
4A/C	Additional Activities: process, regulatory support, collaborative meetings, resource planning	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
4B	Additional Activities: optional residential baseline study	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
5	Project Management and Reporting	\$0	20	40	-	10	10	-	-	-	-	-	-	80	-	\$10,950
	Totals	\$0	30	80	24	42	22	-	-	-	-	-	24	198	24	\$39,830



**Table 3C-6: Calendar Year 2013 and 2014 Budgets for TEESI**

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (CY2013 + CY2014)										CY2013 + CY2014		Total Hours	Total On-Sites	Cost Using 2013 + 2014 billing rates
			Principal	Engineering II	Project Manager III	Project Coordinator /Engineer I	Engineer I/Sr. Designer	Engineer/ Designer	Sr. CAD Mgr./Sr. Tech.	Jr. Technician	Non-Res On-site Verification	Res. On-Site Verification					
1A	Evaluation Prioritization Memo	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
1B	2012 and 2013 Portfolios' EM&V Plan	\$0	40	-	-	-	-	-	-	-	-	-	-	-	40	-	\$6,000
1C	Other Planning Documents	\$0	40	-	-	-	-	-	-	-	-	-	-	-	40	-	\$6,000
2	Develop and Maintain TRM	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
3A	Primary Data Collection	\$0	-	80	36	60	18	-	-	-	-	394	194	394	194	394	\$242,210
3B	Analysis and Desk Reviews	\$0	-	60	36	36	12	-	-	-	-	-	-	-	144	-	\$19,140
3C	Other: program tracking, database development, cost-effectiveness testing	\$0	10	-	-	-	-	-	-	-	-	-	-	-	10	-	\$1,500
4A/C	Additional Activities: process, regulatory support, collaborative meetings, resource planning	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
4B	Additional Activities: optional residential baseline study	\$0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$0
5	Project Management and Reporting	\$0	100	80	-	30	30	-	-	-	-	-	-	-	240	-	\$33,250
Totals		\$0	190	220	72	126	60	-	-	-	-	394	668	394	668	394	\$308,100

To recover Material Handling & Subcontractor costs and General and Administrative costs, Tetra Tech has included a four percent administrative mark-up on Subcontractor costs in accordance with cost recovery mechanisms estimated in our 2013 annual operating plan. The indirect rates are calculated using government accounting principles and are for cost-recovery purposes only—no profit or fee is included in the calculation.



**CONTRACT NO. 473-13-00105**  
**AMENDMENT NO. 1**  
**BETWEEN**  
**THE PUBLIC UTILITY COMMISSION OF TEXAS**  
**AND**  
**TETRA TECH MA, INC.**

The parties to this amendment of Contract No. 473-13-00105 are the Public Utility Commission of Texas (PUCT), a duly organized agency of the State of Texas with its office located at 1701 N. Congress Ave., Austin, Texas 78701 and Tetra Tech MA, Inc., located at 700 N. St. Mary's Street, Suite 300, San Antonio, Texas 78205.

**Article 1. DUTIES OF THE PARTIES**

The parties' duties and the requirements of Contract No. 473-13-00105 shall remain the same, except as specifically modified by this amendment and the PY2014 and PY 2015 budget provided in Attachment A.

**Article 2. TERM AND EFFECTIVE DATE**

The original term of Contract No. 473-13-00105 began February 15, 2013, and was scheduled to end December 31, 2014. By this document, the parties agree to extend the contract through December 31, 2015. This amendment is effective as of the date the last signatory signs.

**Article 3. SERVICES**

All services provided under Contract No. 473-13-00105, remain unchanged except as modified by this document.

**Article 4. COMPENSATION**

Compensation for the additional work required by this amendment and extension will not exceed \$3,139,313, as budgeted in Attachment A, bringing the total allowable compensation under this contract, including the extension, to \$8,827,730.

**Article 5. PUBLIC INFORMATION**

Article 10.3 of Contract No. 473-13-00105 is amended to add the following requirement: Contractor is required to make any information created or exchanged with the state pursuant to this contract, and not otherwise excepted from disclosure under the Texas Public Information Act, available in a format that is accessible by the public at no additional charge to the state.

**Article 6. ENTIRE AGREEMENT**

This contract, amendment and the attachments referenced in each, constitute the entire agreement and understanding between the parties with regard to its subject matter.

Contract No. 475-13-00105  
Amendment No. 1

In WITNESS WHEREOF both parties by their duly authorized representatives have executed this contract effective as of the last date signed.

**The Public Utility Commission of Texas**

By:

  
\_\_\_\_\_

Date: 4/11/14

Brian H. Lloyd  
Executive Director

**Tetra Tech MA, Inc.**

By:

  
\_\_\_\_\_

Date: 4/16/14

Bonnie Brandreth  
Vice-President



Contract No. 475-13-00105  
Amendment No. 1

## **ATTACHMENT A**

2/14/2014 - Date Prepared

**Table 2: Billing Rates**  
**PUCT Evaluation Contractor PY14 & PY15**

Staff			Rate, \$/hour	
Job Title	Employee Name(s)	Firm	2014	2015
Project Director	L. Lee	Tetra Tech	\$ 230.00	\$ 239.00
Director	L. Schauer	Tetra Tech	\$ 230.00	\$ 235.00
Manager	K. Baslock, S. Hanson, R. Hasselman	Tetra Tech	\$ 200.00	\$ 208.00
Sr. Associate	J. Hoechst, D Belknap	Tetra Tech	\$ 175.00	\$ 182.00
Associate	C. Conrad, D. Frazer	Tetra Tech	\$ 150.00	\$ 156.00
Support Associate	TBD	Tetra Tech	\$ 135.00	\$ 140.00
Admin Support	T. Stevens, S. Wagner	Tetra Tech	\$ 135.00	\$ 140.00
Survey Manager	G. Zimmerman	Tetra Tech	\$ 105.00	\$ 109.00
Division Vice President	S. Khawaja	Cadmus		
Executive Director		Cadmus	\$ 240.00	\$ 250.00
Vice President	B. Ward	Cadmus	\$ 235.00	\$ 240.00
Principal	T. Jayaweera	Cadmus	\$ 225.00	\$ 230.00
Sr. Associate	A. Jenniges TBD,	Cadmus	\$ 185.00	\$ 192.00
Associate	S. Reeves, Holly Farah, TBD	Cadmus	\$ 180.00	\$ 188.00
Application Developer	Ryan Kilkenney, TBD	Cadmus	\$ 150.00	\$ 156.00
Sr. Analyst	TBD	Cadmus	\$ 140.00	\$ 146.00
Analyst	TBD	Cadmus	\$ 125.00	\$ 130.00
Research Analyst	TBD	Cadmus	\$ 100.00	\$ 104.00
Administrative II	TBD	Cadmus	\$ 75.00	\$ 78.00
Administrative I	TBD	Cadmus	\$ 55.00	\$ 57.00



Sr. Director	J. Cavalli	Itron		
Sr. Principal Energy Consultant	D. Hanna, M. Messenger	Itron	\$ 231.00	\$ 240.00
Principal Energy Consultant	J. Loper, B. Ramirez, C. Elliot, S. Barsun, M. Ting	Itron	\$ 221.00	\$ 230.00
Sr. Energy Engineer I/ Sr. Economist I	V. Tirumalethy, M. Du	Itron	\$ 189.50	\$ 198.00
Energy Consultant II	A. Khursheed, C Ehrlich	Itron	\$ 179.00	\$ 187.00
Consulting Engineer I	W. Marin, Ben Cheah	Itron	\$ 183.00	\$ 170.00
Energy Consultant I	Chris Murphy	Itron	\$ 152.50	\$ 159.00
Sr. Energy Analyst II	TBD	Itron	\$ 142.50	\$ 149.00
Energy Analyst I	TBD	Itron	\$ 121.00	\$ 126.00
Consulting Support Analyst	Susan Harris, Nicole Quinn	Itron	\$ 83.00	\$ 87.00
President	K. Johnson	Johnson Consulting	\$ 170.00	\$ 177.00
Project Coordinator	C. Mahon	Johnson Consulting	\$ 45.00	\$ 47.00
Project Analyst	D. Mahon	Johnson Consulting	\$ 25.00	\$ 28.00
EM&V Sr. Engineer	M. Koch	Texas A&M	\$ 95.04	\$ 99.00
Program Manager	M. Martin	Texas A&M	\$ 88.21	\$ 92.00
Operations Manager	L. Huff	Texas A&M	\$ 81.21	\$ 84.00
EM&V Lead Engineer	R. Berry	Texas A&M	\$ 89.97	\$ 73.00
Program Coordinator	P. Wren	Texas A&M	\$ 62.42	\$ 65.00
EM&V Engineer II	TBD	Texas A&M	\$ 52.13	\$ 54.00
Program Specialist	M. Trevino	Texas A&M	\$ 46.85	\$ 49.00
EM&V Engineer I	TBD	Texas A&M	\$ 45.85	\$ 48.00
Principal	S. Khan	TEESI	\$ 150.00	\$ 158.00
Engineering II	T. Glass, H. Chau	TEESI	\$ 140.00	\$ 146.00
Project Manager III	J. Gomez	TEESI	\$ 140.00	\$ 146.00
Project Coordinator/Engineer I	M. Bible	TEESI	\$ 120.00	\$ 125.00

Engineer I/Sr. Designer	R. Grahm	TEESI	\$ 115.00	\$ 120.00
Engineer/ Designer	TBD	TEESI	\$ 95.00	\$ 99.00
Jr. Engineer/ Jr. Designer	TBD	TEESI	\$ 85.00	\$ 88.00
Sr. CAD Mgr./Sr. Tech.	R. Shirley	TEESI	\$ 78.00	\$ 81.00
CAD Designer/Tech.	TBD	TEESI	\$ 65.00	\$ 68.00
Jr. Technician	TBD	TEESI	\$ 55.00	\$ 57.00
Office Administrator	H. Bryant	TEESI	\$ 48.00	\$ 50.00
Engineer Aid/Intern	J. Charles	TEESI	\$ 42.00	\$ 44.00
Office Clerk	TBD	TEESI	\$ 25.50	\$ 27.00



Date Prepared	2/14/2014
Firm	Full EM&V Team

Table 3A: 2014 Budget  
PUCT Evaluation Contractor PY14 & PY15

	Task	Material Costs	Estimated Hours Per Firm (2014)						Surveys		Onsites		Total Hours	Cost Using 2014 billing rates
Task #	Task Title	<div>Item</div>	Tetra Tech	Cadmus	Iron	Johnson Consulting	Texas A&M	TEESI	Residential	Nonresidential	Residential	Nonresidential		
1	Evaluation Planning	\$ -	286	248	148	-	-	48	-	-	-	-	711	\$ 137,926
2	TRM	\$ 560	90	208	180	-	-	-	-	-	-	-	484	\$ 90,770
3	EM&V Database Work/Impact Evaluation/CE testing	\$ (12,450)	870	1,717	540	-	194	187	-	-	200	100	3,518	\$ 783,197
4	Additional Activities	\$ 1,100	80	120	10	-	-	-	-	-	-	-	210	\$ 34,950
5a	Management	\$ 2,600	570	192	52	-	-	-	-	-	-	-	814	\$ 176,232
5b	Reporting	\$ -	140	48	14	-	140	70	-	-	-	-	412	\$ 60,566
	Subtotals	\$ (8,200)	2,022	2,533	945	-	334	315	-	-	200	100	6,148	\$ 1,283,641
													Admin Fee	4.0%, \$ 34,983
													Total	\$ 1,318,624

Date Prepared: 2/16/2016  
Form: Table Task

Table 3A: 2014 Budget  
PUCF Evaluation Contractor PY14 & PY15

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (2014)										Surveys		Total Hours	Cost Using 2014 billing rates
			Project Director	Director	Manager	Sr. Associate	Associate	Support Associate	Admin Support	Survey Manager	Residential	Nonresidential				
		Rate	\$ 230.00	\$ 230.00	\$ 200.00	\$ 175.00	\$ 150.00	\$ 135.00	\$ 135.00	\$ 105.00	\$ 45.00	\$ 65.00				
1	Evaluation Planning	\$ -	80	14	180	18			18						206	\$ 53,980
2	TRM	\$ -	96												96	\$ 22,080
3	EM&V Database Work/Impact Evaluation/CE Testing	\$ -		80	372	296	80	40							870	\$ 162,350
4	Additional Activities	\$ -				40	40								80	\$ 13,000
5a	Management	\$ 980	480	80		80									570	\$ 126,750
5b	Reporting	\$ -	40	40		80									140	\$ 28,900
	<b>Totals</b>	\$ 980	646	194	532	474	120	40	18						2,022	\$ 409,080

576

409,080.00

Table 3B: 2015 Budget  
PUCF Evaluation Contractor PY14 & PY15

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (2015)										Surveys		Total Hours	Cost Using 2015 billing rates
			Project Director	Director	Manager	Sr. Associate	Associate	Support Associate	Admin Support	Survey Manager	Residential	Nonresidential				
		Rate	\$ 230.00	\$ 235.00	\$ 205.00	\$ 182.00	\$ 156.00	\$ 140.00	\$ 140.00	\$ 106.00	\$ 46.00	\$ 71.00				
1	Evaluation Planning	\$ -	20	30	130										180	\$ 34,440
2	TRM	\$ -	100												100	\$ 23,900
3	EM&V Database Work/Impact Evaluation/CE Testing	\$ -		96	384	314	130	120		40	140	70			1,074	\$ 211,150
4	Additional Activities	\$ -		80	84	80	80								304	\$ 58,152
5a	Management	\$ 980	446	40		80									546	\$ 127,864
5b	Reporting	\$ -	180	135	185	110	24		64						738	\$ 152,358
	<b>Totals</b>	\$ 980	746	350	764	606	224	120	64	40	140	70			2,920	\$ 608,862
			TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE			TRUE	TRUE

608,862.00

2/14/2016 - Date Prepared  
Table 3C: Total 2014-2015 Budget  
PUCF Evaluation Contractor PY14 & PY15

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (2014 + 2015)										Surveys		Total Hours	Cost Using 2014 + 2015 billing rates
			Project Director	Director	Manager	Sr. Associate	Associate	Support Associate	Admin Support	Survey Manager	Residential	Nonresidential				
1	Evaluation Planning	\$ -	80	34	280	18			18						426	\$ 88,420
2	TRM	\$ -	196												196	\$ 45,980
3	EM&V Database Work/Impact Evaluation/CE Testing	\$ -		176	756	612	200	160		40	140	70			1,944	\$ 373,500
4	Additional Activities	\$ -		80	84	120	120								364	\$ 72,152
5a	Management	\$ 1,900	898	100		120									1,118	\$ 256,614
5b	Reporting	\$ -	220	160	196	212	24		64						876	\$ 181,256
	<b>Totals</b>	\$ 1,900	1,392	550	1,296	1,060	344	160	60	40	140	70			4,942	\$ 1,017,922



Date Prepared: 7/17/2014  
 City: Chicago

Table 3A: 2014 Budget  
 PUCT Evaluation Contractor FY14 & FY15

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (2014)												Total Hours	Cost Using 2014 billing rates
			Division Vice President	Executive Director	Vice President	Principal	Sr. Associate	Associate	Application Developer	Sr. Analyst	Analyst	Research Analyst	Administrative II	Administrative I		
			\$ -	\$ 240.00	\$ 235.00	\$ 225.00	\$ 185.00	\$ 160.00	\$ 150.00	\$ 140.00	\$ 125.00	\$ 100.00	\$ 75.00	\$ 55.00		
1	Evaluation Planning	\$ -	-	-	32	40	80	-	-	-	58	-	-	-	248	\$ 47,320
2	TRM	\$ -	-	-	24	24	-	80	-	-	80	-	-	-	208	\$ 33,840
3	EMSV/Database Work	\$ 3,000	-	-	24	64	105	180	350	-	984	-	-	-	1,717	\$ 248,015
6	Additional Activities	\$ 1,100	-	-	2	4	48	4	-	-	62	-	-	-	120	\$ 19,740
6	Management	\$ 1,100	-	-	40	40	32	-	-	-	80	-	-	-	192	\$ 35,420
6	Reporting	\$ -	-	-	24	24	-	-	-	-	-	-	-	-	48	\$ 11,040
	<b>Totals</b>	<b>\$ 5,200</b>	-	-	<b>146</b>	<b>236</b>	<b>265</b>	<b>264</b>	<b>350</b>	-	<b>1,272</b>	-	-	-	<b>2,533</b>	<b>\$ 395,375</b>

Table 3B: 2015 Budget  
 PUCT Evaluation Contractor FY14 & FY15

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (2015)												Total Hours	Cost Using 2015 billing rates
			Division Vice President	Executive Director	Vice President	Principal	Sr. Associate	Associate	Application Developer	Sr. Analyst	Analyst	Research Analyst	Administrative II	Administrative I		
			\$ -	\$ 250.00	\$ 240.00	\$ 230.00	\$ 192.00	\$ 166.00	\$ 158.00	\$ 148.00	\$ 130.00	\$ 104.00	\$ 78.00	\$ 57.00		
1	Evaluation Planning	\$ -	-	-	4	20	20	-	-	-	0	-	-	-	52	\$ 10,440
4	TRM	\$ -	-	-	80	80	80	200	-	-	200	-	-	-	640	\$ 112,160
3	EMSV/Database Work	\$ 1,500	-	-	24	38	183	213	300	-	758	-	-	-	1,514	\$ 230,874
4	Additional Activities	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ -
6	Management	\$ 2,300	-	-	14	30	-	-	-	-	-	-	-	60	104	\$ 15,880
6	Reporting	\$ -	-	-	60	87	82	-	40	-	180	-	-	-	429	\$ 73,194
	<b>Totals</b>	<b>\$ 3,200</b>	-	-	<b>182</b>	<b>233</b>	<b>365</b>	<b>413</b>	<b>340</b>	-	<b>1,148</b>	-	-	<b>60</b>	<b>2,736</b>	<b>\$ 444,548</b>

2/13/2014 Date Prepared:

Table 3C: Total 2014-2015 Budget  
 PUCT Evaluation Contractor FY14 & FY15

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (2014 + 2015)												Total Hours	Cost Using 2014 + 2015 billing rates
			Division Vice President	Executive Director	Vice President	Principal	Sr. Associate	Associate	Application Developer	Sr. Analyst	Analyst	Research Analyst	Administrative II	Administrative I		
1	Evaluation Planning	\$ -	-	-	36	100	100	-	-	-	64	-	-	-	310	\$ 57,780
2	TRM	\$ -	-	-	104	104	80	280	-	-	280	-	-	-	648	\$ 140,000
3	EMSV/Database Work	\$ 4,000	-	-	48	100	268	393	650	-	1,752	-	-	-	3,231	\$ 478,880
4	Additional Activities	\$ 1,100	-	-	2	4	48	4	-	-	62	-	-	-	120	\$ 19,740
6	Management	\$ 3,300	-	-	54	70	32	-	-	-	80	-	-	60	296	\$ 51,310
6	Reporting	\$ -	-	-	84	91	82	-	40	-	180	-	-	-	477	\$ 86,234
	<b>Totals</b>	<b>\$ 8,400</b>	-	-	<b>328</b>	<b>469</b>	<b>630</b>	<b>677</b>	<b>890</b>	-	<b>2,418</b>	-	-	<b>60</b>	<b>5,272</b>	<b>\$ 830,622</b>

Date Prepared	2/12/2014
Form	1000

Table 3A: 2014 Budget  
PUC Evaluation Contractor CY14 & CY15-  
PY2014

Table 3a: 2014 Budget

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (2014)											Total Hours	Cost Using 2014 billing rates
			Sr. Director	Sr. Principal Energy Consultant	Principal Energy Consultant	Sr. Energy Engineer V Sr. Economist I	Energy Consultant II	Consulting Engineer I	Energy Consultant I	Sr. Energy Analyst II	Energy Analyst I	Consulting Support Analyst			
		rates	\$	\$ 231.00	\$ 221.00	\$ 189.50	\$ 179.00	\$ 163.00	\$ 152.50	\$ 142.50	\$ 121.00	\$ 83.00			
1	Evaluation Planning	\$ -		20	76	45	10	0	0	0	0	0	0	149	\$ 31,792
2	TRM	\$ 500		26	72			86					14	180	\$ 36,850
3	EM&V/Database Work	\$ 500	0	26	110	189	0	20	120	80	40			540	\$ 97,917
4	Additional Activities	\$ -		0	10									10	\$ 2,210
5a	Management	\$ 550		2	98									52	\$ 12,062
5b	Reporting	\$ -			14									14	\$ 3,094
	Totals	\$ 1,550		86	332	227		86	120	40	40	14		945	\$ 181,925

Table 3B: 2016 Budget  
PUC Evaluation Contractor PY14 & PY16

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (2016)											Total Hours	Cost Using 2016 billing rates
			Sr. Director	Sr. Principal Energy Consultant	Principal Energy Consultant	Sr. Energy Engineer V Sr. Economist I	Energy Consultant II	Consulting Engineer I	Energy Consultant I	Sr. Energy Analyst II	Energy Analyst I	Consulting Support Analyst			
		rates	\$	\$ 240.00	\$ 230.00	\$ 196.00	\$ 187.00	\$ 170.00	\$ 159.00	\$ 149.00	\$ 126.00	\$ 87.00			
1	Evaluation Planning	\$ -	0	18	110	88	0	0	0	0	0	0	0	192	\$ 42,208
2	TRM	\$ 1,100		46	215			287					22	582	\$ 114,474
3	EM&V/Database Work	\$ -		87	190	366	0	10	600	126	300			1,611	\$ 284,678
4	Additional Activities	\$ -		0	10		0						0	10	\$ 2,300
5a	Management	\$ 550		0	98									56	\$ 13,430
5b	Reporting	\$ -		8	200									208	\$ 47,920
	Totals	\$ 1,650		160	781	454		307	600	126	300	22		2,650	\$ 505,210

Table 3C: Total 2014-2016 Budget  
PUC Evaluation Contractor PY14 & PY16

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (2014 + 2016)											Total Hours	Cost Using 2014 + 2016 billing rates
			Sr. Director	Sr. Principal Energy Consultant	Principal Energy Consultant	Sr. Energy Engineer V Sr. Economist I	Energy Consultant II	Consulting Engineer I	Energy Consultant I	Sr. Energy Analyst II	Energy Analyst I	Consulting Support Analyst			
		rates	\$	\$ 240.00	\$ 230.00	\$ 196.00	\$ 187.00	\$ 170.00	\$ 159.00	\$ 149.00	\$ 126.00	\$ 87.00			
1	Evaluation Planning	\$ -		44	186	111								341	\$ 74,000
2	TRM	\$ 1,650		76	287			365					36	762	\$ 149,324
3	EM&V/Database Work	\$ 550		125	300	570		30	726	166	340			2,151	\$ 382,795
4	Additional Activities	\$ -			20									20	\$ 4,510
5a	Management	\$ 1,100		2	106									106	\$ 25,492
5b	Reporting	\$ -		8	214									222	\$ 51,014
	Totals	\$ 3,300		255	1,113	681		393	726	166	340	36		3,604	\$ 687,135



Date Prepared	1/24/2014
Firm	Johnson Consulting

Table 3A: 2014 Budget  
PUCT Evaluation Contractor PY14 & PY15

Task #	Task	Material Costs <i>rates</i>	Estimated Hours Per Job Title (2014)				Cost Using 2014 billing rates
			President	Project Coordinator	Project Analyst	Total Hours	
			\$ 170.00	\$ 45.00	\$ 25.00		
1	Evaluation Planning	\$ -	-	-	-	-	\$ -
2	TRM	\$ -	-	-	-	-	\$ -
3	EM&V/Database Work	\$ -	-	-	-	-	\$ -
4	Additional Activities	\$ -	-	-	-	-	\$ -
5	Management	\$ -	-	-	-	-	\$ -
6	Reporting	\$ -	-	-	-	-	\$ -
	Totals	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Table 3B: 2015 Budget  
PUCT Evaluation Contractor PY14 & PY15

Task #	Task	Material Costs <i>rates</i>	Estimated Hours Per Job Title (2015)				Cost Using 2015 billing rates
			President	Project Coordinator	Project Analyst	Total Hours	
			\$ 177.00	\$ 47.00	\$ 26.00		
1	Evaluation Planning	\$ -	-	-	-	-	\$ -
2	TRM	\$ -	85	80	52	217	\$ 20,157
3	EM&V/Database Work	\$ -	-	-	-	-	\$ -
4	Additional Activities	\$ -	-	-	-	-	\$ -
5	Management	\$ -	-	-	-	-	\$ -
6	Reporting	\$ -	-	-	-	-	\$ -
	Totals	\$ -	85	80	52	217	\$ 20,157

1/9/2014	Date Prepared
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Table 3C: Total 2014-2015 Budget  
PUCT Evaluation Contractor PY14 & PY15

	Task	Material Costs	Estimated Hours Per Job Title (2014 + 2015)				Cost Using 2014 + 2015 billing rates
			President	Project Coordinator	Project Analyst	Total Hours	
Task #	Task Title						
1	Evaluation Planning	\$ -	-	-	-	-	\$ -
2	TRM	\$ -	85	80	52	217	\$ 20,157
3	EM&V/Database Work	\$ -	-	-	-	-	\$ -
4	Additional Activities	\$ -	-	-	-	-	\$ -
5	Management	\$ -	-	-	-	-	\$ -
6	Reporting	\$ -	-	-	-	-	\$ -
	Totals	\$ -	85	80	52	217	\$ 20,157



Date Prepared	2/16/2015
From	Tomas A&M

Table 3A: 2014 Budget  
PUCT Evaluation Contractor CY14 & CY15  
PY2014

Table 3a: 2014 Budget

Task #	Task Title	Material Costs/PY 2013 credit	Estimated Hours Per Job Title (2014)										Total Hours	Cost Using 2014 billing rates
			EM&V Sr. Engineer	Program Manager	Operations Manager	EM&V Lead Engineer	Program Coordinator	EM&V Engineer II	Program Specialist	EM&V Engineer I	Residential Onsites	Nonresidential Onsites		
			\$ 95.04	\$ 88.21	\$ 81.21	\$ 69.97	\$ 62.42	\$ 52.13	\$ 46.85	\$ 45.85	\$ 550	\$ 1,500		
1	Evaluation Planning	\$ -	-	-	-	-	-	-	-	-	-	-	-	\$ -
2	TRM	\$ -	-	-	-	-	-	-	-	-	-	-	-	\$ -
3	EM&V/Database Work	\$ (8,000)	20	40	36	-	20	-	78	-	100	50	194	\$ 135,255
4	Additional Activities	\$ -	-	-	-	-	-	-	-	-	-	-	-	\$ -
5	Management	\$ -	-	-	-	-	-	-	-	-	-	-	-	\$ -
4	Reporting	\$ -	24	64	-	42	-	-	10	-	-	-	180	\$ 11,334
	<b>Totals</b>	\$ (8,000)	44	104	36	42	20	-	88	-	100	50	334	\$ 148,589

EM&V/DB hours by program  
Table 3B: 2015 Budget  
PUCT Evaluation Contractor PY14 & PY15

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (2015)										Total Hours	Cost Using 2015 billing rates
			EM&V Sr. Engineer	Program Manager	Operations Manager	EM&V Lead Engineer	Program Coordinator	EM&V Engineer II	Program Specialist	EM&V Engineer I	Residential Onsites	Nonresidential Onsites		
			\$ 99.00	\$ 92.00	\$ 84.00	\$ 73.00	\$ 65.00	\$ 54.00	\$ 48.00	\$ 48.00	\$ 575	\$ 1,500		
2	Evaluation Planning	\$ -	-	-	-	-	-	-	-	-	-	-	-	\$ -
2	TRM	\$ -	-	-	-	-	-	-	-	-	-	-	-	\$ -
3	EM&V/Database Work	\$ -	20	24	18	-	10	-	40	-	74	28	112	\$ 69,660
4	Additional Activities	\$ -	-	-	-	-	-	-	-	-	-	-	-	\$ -
5a	Management	\$ -	-	-	-	-	-	-	-	-	-	-	-	\$ -
5b	Reporting	\$ -	18	32	-	40	-	-	10	-	-	-	100	\$ 8,135
	<b>Totals</b>	\$ -	38	56	18	40	10	-	50	-	74	28	212	\$ 97,095

Tab 3: EM&V and DB hours by program

7/20/2014 - Date Prepared  
Table 3C: Total 2014-2015 Budget  
PUCT Evaluation Contractor PY14 & PY15

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (2014 + 2015)										Total Hours	Cost Using 2014 + 2015 billing rates
			EM&V Sr. Engineer	Program Manager	Operations Manager	EM&V Lead Engineer	Program Coordinator	EM&V Engineer II	Program Specialist	EM&V Engineer I	Residential Onsites	Nonresidential Onsites		
1	Evaluation Planning	\$ -	-	-	-	-	-	-	-	-	-	-	-	\$ -
2	TRM	\$ -	-	-	-	-	-	-	-	-	-	-	-	\$ -
3	EM&V/Database Work	\$ (8,000)	40	64	54	-	30	-	118	-	174	78	308	\$ 225,115
4	Additional Activities	\$ -	-	-	-	-	-	-	-	-	-	-	-	\$ -
5a	Management	\$ -	-	-	-	-	-	-	-	-	-	-	-	\$ -
5b	Reporting	\$ -	42	96	-	62	-	-	20	-	-	-	280	\$ 19,470
	<b>Totals</b>	\$ (8,000)	82	160	54	62	30	-	138	-	174	78	588	\$ 244,585

File Prepared	11/4/2016
File Name	111131

Table 2A: 2014 Budget  
PUCI Evaluation  
Contractor PY14 & PY15

Task #	Task Title	Material Costs Contractor PY14	Estimated Hours Per Job Title (2014)															Total Hours	Cost Using 2014 billing rates
			Principal	Engineering II	Project Manager II	Project Coordinator/Engineer I	Engineer V/II Designer	Engineer Designer	Jr. Engineer Designer	Sr. CAD Manager/Technician	CAD Designer/Technician	Jr. Technician	Office Administrator	Engineer Auditor	Office Clerk	Recreational Counselor	Nonrecreational Counselor		
1	Evaluation Planning	\$ -	10	5	-	15	-	-	-	-	-	-	13	5	-	-	-	48	\$ 4,034
2	TRM	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ -
3	EM&V/Database Work	\$ (8,000.00)	18	10	-	15	-	-	120	11	-	-	10	18	-	120	50	187	\$ 139,660
4	Additional Activities	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ -
5a	Management	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ -
5b	Reporting	\$ -	2	10	-	7	-	-	34	-	-	-	9	5	-	-	-	70	\$ 6,108
	<b>Totals</b>	<b>\$ (8,000.00)</b>	<b>27</b>	<b>25</b>	<b>-</b>	<b>37</b>	<b>-</b>	<b>-</b>	<b>154</b>	<b>11</b>	<b>-</b>	<b>-</b>	<b>32</b>	<b>29</b>	<b>-</b>	<b>120</b>	<b>50</b>	<b>215</b>	<b>\$ 150,692</b>

Table 2B: 2015 Budget  
PUCI Evaluation  
Contractor PY15 & PY16

Task #	Task Title	Material Costs Contractor PY15	Estimated Hours Per Job Title (2015)															Total Hours	Cost Using 2015 billing rates
			Principal	Engineering II	Project Manager II	Project Coordinator/Engineer I	Engineer V/II Designer	Engineer Designer	Jr. Engineer Designer	Sr. CAD Manager/Technician	CAD Designer/Technician	Jr. Technician	Office Administrator	Engineer Auditor	Office Clerk	Recreational Counselor	Nonrecreational Counselor		
1	Evaluation Planning	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ -
2	TRM	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ -
3	EM&V/Database Work	\$ -	12	6	-	10	-	-	80	5	-	-	9	10	-	74	26	109	\$ 91,973
4	Additional Activities	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ -
5a	Management	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ -
5b	Reporting	\$ -	2	6	-	4	-	-	30	-	-	-	9	5	-	-	-	56	\$ 5,334
	<b>Totals</b>	<b>\$ -</b>	<b>14</b>	<b>14</b>	<b>-</b>	<b>14</b>	<b>-</b>	<b>-</b>	<b>90</b>	<b>5</b>	<b>-</b>	<b>-</b>	<b>15</b>	<b>18</b>	<b>-</b>	<b>74</b>	<b>26</b>	<b>165</b>	<b>\$ 97,307</b>

Table 3C: Total 2014-2015  
Budget  
PUCI Evaluation  
Contractor PY14 & PY15

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (2014 + 2015)															Total Hours	Cost Using 2014 + 2015 billing rates
			Principal	Engineering II	Project Manager II	Project Coordinator/Engineer I	Engineer V/II Designer	Engineer Designer	Jr. Engineer Designer	Sr. CAD Manager/Technician	CAD Designer/Technician	Jr. Technician	Office Administrator	Engineer Auditor	Office Clerk	Recreational Counselor	Nonrecreational Counselor		
1	Evaluation Planning	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ -
2	TRM	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ -
3	EM&V/Database Work	\$ (8,000.00)	27	11	-	25	-	-	160	16	-	-	28	28	-	174	76	308	\$ 231,633
4	Additional Activities	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ -
5a	Management	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ -
5b	Reporting	\$ -	4	16	-	14	-	-	94	-	-	-	18	10	-	-	-	174	\$ 11,532
	<b>Totals</b>	<b>\$ (8,000.00)</b>	<b>41</b>	<b>27</b>	<b>-</b>	<b>39</b>	<b>-</b>	<b>-</b>	<b>254</b>	<b>16</b>	<b>-</b>	<b>-</b>	<b>47</b>	<b>48</b>	<b>-</b>	<b>174</b>	<b>76</b>	<b>482</b>	<b>\$ 243,165</b>

**CONTRACT NO. 473-13-00105  
AMENDMENT NO. 2  
BETWEEN  
THE PUBLIC UTILITY COMMISSION OF TEXAS  
AND  
TETRA TECH MA, INC.**

The parties to this amendment of Contract No. 473-13-00105 are the Public Utility Commission of Texas (PUCT), a duly organized agency of the State of Texas with its office located at 1701 N. Congress Ave., Austin, Texas 78701 and Tetra Tech MA, Inc., located at 700 N. St. Mary's Street, Suite 300, San Antonio, Texas 78205.

**Article 1. DUTIES OF THE PARTIES**

The parties' duties and the requirements of Contract No. 473-13-00105 shall remain the same, except as specifically modified by this amendment and the PY2015 and PY 2016 budget provided in Attachment A.

**Article 2. TERM AND EFFECTIVE DATE**

The original term of Contract No. 473-13-00105 began February 15, 2013, and was scheduled to end December 31, 2014, with two one-year extension options. The first extension option was exercised to extend the contract through December 31, 2015. By this document, the parties agree to extend the contract through December 31, 2016. This amendment is effective as of the date the last signatory signs.

**Article 3. SERVICES**

All services provided under Contract No. 473-13-00105, remain unchanged except as modified by this amendment and the PY 2015 and PY 2016 budget provided in Attachment A.

**Article 4. COMPENSATION**

Compensation for the additional work required by this amendment and extension will not exceed \$1,832,508, as budgeted in Attachment A, bringing the total allowable compensation under this contract, including the extensions, to \$10,660,238.

**Article 5. ENTIRE AGREEMENT**

This contract, amendment and the attachments referenced in each, constitute the entire agreement and understanding between the parties with regard to its subject matter.

In WITNESS WHEREOF both parties by their duly authorized representatives have executed this contract effective as of the last date signed.



Contract No. 475-13-00105  
Amendment No. 2

**The Public Utility Commission of Texas**

By:

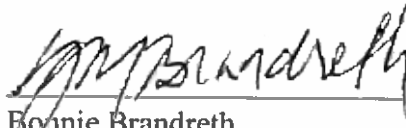


Brian H. Lloyd  
Executive Director

Date: 12-18-15

**Tetra Tech MA, Inc.**

By:



Bonnie Brandreth  
Vice-President

Date: 12/21/15

## ATTACHMENT A

**Table 1. Billing Rates, Calendar Years 2015 and 2016**

Staff			Rate, \$/hour		
Job Title	Employee Name(s)	Prime or Sub-Contractor	2015	2016	2-year Billing Rates Averages 2015–2016
Project Director	L. Lee	Tetra Tech	\$239	\$246	\$243
Director	S. Hanson, P. Rathbun, P. Krecker, B. Baumgartner, T. Lutz	Tetra Tech	\$235	\$242	\$239
Manager	K. Baslock, R. Hasselman, K. Bakalars, C. Koenig, D. Rouleau	Tetra Tech	\$208	\$214	\$211
Principal Consultant	D. Belknap, S. Drake, L. Stefanik	Tetra Tech	\$195	\$201	\$198
Senior Associate	J. Hoechst, J. Brooks, K. Durlacher, T. Holmes, C. King	Tetra Tech	\$182	\$187	\$185
Associate	C. Conrad, B. Cooley, J. Durst, R. Cavada	Tetra Tech	\$156	\$161	\$159
Senior Analyst	D. Petranek, J. Verbeten, A. White, K. Luangpoomyut, L. Chang	Tetra Tech	\$145	\$150	\$148
Analyst	M. Anding, D. Fitzpatrick, L. Frerich, E. Joller	Tetra Tech	\$140	\$144	\$142
Admin Support	T. Stevens, S. Wagner, M. Dodd	Tetra Tech	\$140	\$144	\$142
Survey Manager	G. Zimmerman	Tetra Tech	\$109	\$112	\$111

Staff			Rate, \$/hour		
Job Title	Employee Name(s)	Prime or Sub-Contractor	2015	2016	2-year Billing Rates Averages <del>2015-</del> 2016
Vice President	M. S. Khawaja	Cadmus	\$240	\$247	\$244
Principal	E. Rambo	Cadmus	\$230	\$237	\$234
Senior Associate	S. Reeves, S. Cofer	Cadmus	\$192	\$198	\$195
Associate	J. Christensen, S. Davis, H. Farahbakhsh, J. Hockett	Cadmus	\$166	\$171	\$169
Application Developer	TBD	Cadmus	\$156	\$161	\$159
Senior Analyst	N. Bodington	Cadmus	\$146	\$150	\$148
Analyst	A. Sojka, A. Osteen	Cadmus	\$130	\$134	\$132
Research Analyst	TBD	Cadmus	\$104	\$107	\$106
Admin II	TBD	Cadmus	\$78	\$80	\$79
Admin I	TBD	Cadmus	\$57	\$59	\$58
Sr. Principal Consultant	D. Hanna	Itron	\$240	\$247	\$244
Principal Engineer/Principal Consultant	B. Ramirez, S. Barsun	Itron	\$230	\$237	\$234



Staff			Rate, \$/hour		
Job Title	Employee Name(s)	Prime or Sub-Contractor	2015	2016	2-year Billing Rates Averages 2015-2016
Sr. Consulting Engineer I/ Sr. Consultant I	TBD	Itron	\$198	\$204	\$201
Consulting Engineer II/Consultant II	TBD	Itron	\$187	\$193	\$190
Consulting Engineer I/Consultant I	TBD	Itron	\$170	\$175	\$173
Sr. Engineer II/Sr. Analyst II	K. Branderhorst	Itron	\$159	\$164	\$162
Sr. Engineer I/Sr. Analyst I	TBD	Itron	\$149	\$153	\$151
Engineer/Analyst I	TBD	Itron	\$126	\$130	\$128
Consulting Support Analyst	TBD	Itron	\$87	\$90	\$89
President	K. Johnson	Johnson Consulting	\$177	\$182	\$180
Project Coordinator	C. Mahon	Johnson Consulting	\$47	\$48	\$48
Project Analyst	D. Mahon	Johnson Consulting	\$26	\$27	\$27
Principal	S. Khan	TEESI	\$156	\$161	\$159

Staff			Rate, \$/hour		
Job Title	Employee Name(s)	Prime or Sub-Contractor	2015	2016	2-year Billing Rates Averages <del>2015</del> – 2016
Engineering II	TBD	TEESI	\$146	\$150	\$148
Project Manager III	TBD	TEESI	\$146	\$150	\$148
Project Coordinator/Engineer I	M. Bible	TEESI	\$125	\$129	\$127
Engineer I/Sr. Designer	TBD	TEESI	\$120	\$124	\$122
Engineer/Designer	TBD	TEESI	\$99	\$102	\$101
Jr. Engineer/Jr. Designer	TBD	TEESI	\$88	\$91	\$90
Sr. CAD Mgr./Sr. Tech.	TBD	TEESI	\$81	\$83	\$82
CAD Designer/Tech.	TBD	TEESI	\$68	\$70	\$69
Jr. Technician	TBD	TEESI	\$57	\$59	\$58
Office Administrator	H. Bryant	TEESI	\$50	\$52	\$51
Engineer Aid/Intern	TBD	TEESI	\$44	\$45	\$45
Office Clerk	TBD	TEESI	\$27	\$28	\$28
Markup (percent) on subcontractor labor and materials/directs:					4%

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**Table 2A. Total Calendar Year 2015 Hours and Costs by Firm**

[illegible]

**Table 2B. Total Calendar Year 2016 Hours and Costs by Firm**

Task #	Task	Material Costs	Estimated Hours Per Job Title (2016)					Total Hours	Cost Using 2016 billing rates
			Tetra Tech	Cadmus	Itron	Johnson Consulting	TEESI		
1A	Evaluation Prioritization Memo	\$0	-	-	-	-	-	-	\$0
1B	2015 Portfolios' EM&V Plan	\$0	-	-	-	-	-	-	\$0
1C	Other Planning Documents	\$0	128	50	-	-	-	178	\$35,845
2	Develop and Maintain TRM	\$0	480	375	235	146	-	1,236	\$251,418
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	\$0
	Task 3: Data Collection	\$0	1,120	395	-	-	444	1,959	\$477,549
	Task 3: Analysis	\$0	1,300	625	-	-	272	2,197	\$418,642
	Task 3: Other	\$0	-	25	-	-	-	25	\$3,750
4	Additional Activities	\$0	140	130	10	-	-	280	\$58,665
5	Project Management and Reporting	\$8,960	920	295	40	-	45	1,300	\$286,165
	Subtotals	\$8,960	4,088	1,895	285	146	761	7,175	\$1,532,034
	Markup on subcontractor labor and materials/directs = 4%								\$27,907
	Totals								\$1,559,940



**Table 2C. Total Calendar Year 2015 and 2016 Hours and Costs by Firm**

Task #	Task	Material Costs	Estimated Hours Per Job Title (2015 + 2016)						Cost Using 2015 + 2016 billing rates
			Tetra Tech	Cadmus	Itron	Johnson Consulting	TEESI	Total Hours	
1A	Evaluation Prioritization Memo	\$0	106	-	-	-	-	106	\$20,460
1B	2015 Portfolios' EM&V Plan	\$0	90	100	-	-	-	190	\$37,858
1C	Other Planning Documents	\$0	128	50	-	-	-	178	\$35,845
2	Develop and Maintain TRM	\$0	500	405	235	146	-	1,286	\$261,298
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	\$0
	Task 3: Data Collection	\$0	1,818	395	-	-	444	2,657	\$592,131
	Task 3: Analysis	\$0	1,300	764	-	-	272	2,336	\$445,126
	Task 3: Other	\$0	-	25	-	-	-	25	\$3,750
4	Additional Activities	\$0	224	155	10	-	-	389	\$80,293
5	Project Management and Reporting	\$8,960	1,090	295	40	-	45	1,470	\$325,655
	Subtotals	\$8,960	5,256	2,189	285	146	761	8,637	\$1,802,416
	Markup on subcontractor labor and materials/directs = 4%								\$30,093
	Totals								\$1,832,508

**Table 2A-1. Calendar Year 2015 Hours and Costs for Tetra Tech**

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (2015)										Total Hours	Cost Using 2015 billing rates
			Project Director	Director	Manager	Principal Consultant	Senior Associate	Associate	Senior Analyst	Analyst	Admin Support	Survey Manager		
1A	Evaluation Prioritization Memo		15	15	15		30	25	6				106	\$ 20,460
1B	2015 Portfolio EM&V Plan		30	30	30								90	\$ 20,460
1C	Other Planning Documents												-	\$ -
2	Develop and Maintain TRM				10		10						20	\$ 3,900
3	Implement the Impact Evaluation and Verification Efforts												-	\$ -
	Task 3: Data Collection			24	24	120	100		430				698	\$ 114,582
	Task 3: Analysis												-	\$ -
	Task 3: Other												-	\$ -
4	Additional Activities				60		24						84	\$ 16,848
5	Project Management and Reporting		150				20						170	\$ 39,490
	Totals	\$ -	195	69	139	120	184	25	436	0	0	0	1,168	\$ 215,740

**Table 2B-1. Calendar Year 2016 Hours and Costs for Tetra Tech**

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (2016)										Total Hours	Cost Using 2016 billing rates
			Project Director	Director	Manager	Principal Consultant	Senior Associate	Associate	Senior Analyst	Analyst	Admin Support	Survey Manager		
1A	Evaluation Prioritization Memo		24	24	24	20	15	16	15	14	14	11	-	\$0
1B	2015 Portfolios' EM&V Plan												-	\$0
1C	Other Planning Documents		20	20	20	20	32	16					128	\$26,620
2	Develop and Maintain TRM		280		100		100						480	\$108,980
3	Implement the Impact Evaluation and Verification Efforts												-	\$0
	Task 3: Data Collection		20	50		250	260	200	300		40		1,120	\$198,850
	Task 3: Analysis		40	300	260	200	250	120	130				1,300	\$263,850
	Task 3: Other												-	\$0
4	Additional Activities		40	20	20	20	40						140	\$30,460
5	Project Management and Reporting	\$ 4,360	400	80	80	80	200	80					920	\$205,600
	Totals	\$ 4,360	800	470	480	570	882	416	430	-	40	-	4,098	\$834,360



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**Table 2C-2. Calendar Year 2015 and 2016 Budgets for Cadmus**

[illegible]**Table 2A-3. Calendar Year 2015 Hours and Costs for Itron**[illegible]**Table 2B-3. Calendar Year 2016 Hours and Costs for Itron**[illegible]



**Table 2C-3. Calendar Year 2015 and 2016 Budgets for Itron**

Task		Material Costs	Estimated Hours Per Job Title (2015 + 2016)										Total Hours	Cost Using 2015 + 2016 billing rates
			Sr. Principal Consultant	Principal Engineer/Principal Consultant	Sr. Consulting Engineer I/Sr. Consultant I	Consulting Engineer II/Consultant II	Consulting Engineer I/Consultant I	Sr. Engineer II/Sr. Analyst II	Sr. Engineer I/Sr. Analyst I	Engineer I/Analyst I	Consulting Support Analyst			
Task #	Task Title													
1A	Evaluation Prioritization Memo	\$0	-	-	-	-	-	-	-	-	-	-	\$0	
1B	2015 Portfolios' EM&V Plan	\$0	-	-	-	-	-	-	-	-	-	-	\$0	
1C	Other Planning Documents	\$0	-	-	-	-	-	-	-	-	-	-	\$0	
2	Develop and Maintain TRM	\$0	40	155	-	-	-	-	40	-	-	235	\$53,175	
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	-	-	-	-	-	-	\$0	
	Task 3: Data Collection	\$0	-	-	-	-	-	-	-	-	-	-	\$0	
	Task 3: Analysis	\$0	-	-	-	-	-	-	-	-	-	-	\$0	
	Task 3: Other	\$0	-	-	-	-	-	-	-	-	-	-	\$0	
4	Additional Activities	\$0	-	10	-	-	-	-	-	-	-	10	\$2,370	
5	Project Management and Reporting	\$1,375	-	40	-	-	-	-	-	-	-	40	\$10,855	
	Subtotals	\$1,375	40	205	-	-	-	-	40	-	-	285	\$66,400	
Markup on subcontractor labor and materials/directs = 4%													\$2,656	
Total													\$69,056	

**Table 2A-4. Calendar Year 2015 Hours and Costs for Johnson Consulting Group**

Task #	Task Title	Material Costs	Estimated Hours Per Job Title (2015)				Cost Using 2015 billing rates
			President	Project Coordinator	Project Analyst	Total Hours	
1A	Evaluation Prioritization Memo	rates	\$177	\$47	\$26	-	\$0
1B	2015 Portfolio EM&V Plan					-	\$0
1C	Other Planning Documents					-	\$0
2	Develop and Maintain TRM					-	\$0
3	Implement the Impact Evaluation and Verification Efforts					-	\$0
	Task 3: Data Collection					-	\$0
	Task 3: Analysis					-	\$0
	Task 3: Other					-	\$0
4	Additional Activities					-	\$0
5	Project Management and Reporting					-	\$0
	<b>Subtotals</b>	\$0	-	-	-	-	\$0
	Markup on subcontractor labor and materials/directs = 4%						\$0
	<b>Total</b>						\$0

**Table 2B-4. Calendar Year 2016 Hours and Costs for Johnson Consulting Group**

Task #	Task	Material Costs	Estimated Hours Per Job Title (2016)				Cost Using 2016 billing rates
			President	Project Coordinator	Project Analyst	Total Hours	
		rates	\$182	\$48	\$27		
1A	Evaluation Prioritization Memo					-	\$0
1B	2015 Portfolios' EM&V Plan					-	\$0
1C	Other Planning Documents					-	\$0
2	Develop and Maintain TRM		105	26	15	146	\$20,763
3	Implement the Impact Evaluation and Verification Efforts					-	\$0
	Task 3: Data Collection					-	\$0
	Task 3: Analysis					-	\$0
	Task 3: Other					-	\$0
4	Additional Activities					-	\$0
5	Project Management and Reporting					-	\$0
	Subtotals	\$0	105	26	15	146	\$20,763
	Markup on subcontractor labor and materials/directs = 4%						\$831
	Total						\$21,594

**Table 2C-4. Calendar Year 2015 and 2016 Budgets for Johnson Consulting Group**

Task #	Task	Material Costs	Est. Hours Per Job Title (2015 + 2016)				Cost Using 2015 + 2016 billing rates
			President	Project Coordinator	Project Analyst	Total Hours	
1A	Evaluation Prioritization Memo	\$0	-	-	-	-	\$0
1B	2015 Portfolios' EM&V Plan	\$0	-	-	-	-	\$0
1C	Other Planning Documents	\$0	-	-	-	-	\$0
2	Develop and Maintain TRM	\$0	105	26	15	146	\$20,763
3	Implement the Impact Evaluation and Verification Efforts	\$0	-	-	-	-	\$0
	Task 3: Data Collection	\$0	-	-	-	-	\$0
	Task 3: Analysis	\$0	-	-	-	-	\$0
	Task 3: Other	\$0	-	-	-	-	\$0
4	Additional Activities	\$0	-	-	-	-	\$0
5	Project Management and Reporting	\$0	-	-	-	-	\$0
	Subtotals	\$0	105	26	15	146	\$20,763
	Markup on subcontractor labor and materials/directs = 4%						\$831
	Total						\$21,594

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**Table 2A-6. Calendar Year 2015 Hours and Costs for TEESI**

		Material Costs	Estimated Hours Per Job Title (2015)												On-site Visits		Total Hours	Using 2015 Building rates	
Task	Notes		Principal	Engineering II	Project Manager III	Project Coordinator / Engineer I	Engineer I or Designer	Engineer / Designer	Jr. Engineer / Designer	Sr. CAD Mgr./Sr. Tech.	CAD Designer / Tech.	Jr. Technician	Office Administrator	Engineer Aide / Intern	Office Clerk	Residential			Non-residential
Task #	Task Title		\$136	\$140	\$144	\$179	\$120	100	\$68	\$81	\$60	\$177	\$50	\$64	\$27	\$375	\$1,300		\$C
1A	Evolution Prioritization Memo																		\$C
1B	2015 Portfolio E&M&V Plan																		\$C
1C	Other Planning Documents																		\$C
2	Develop and Maintain THM																		\$C
3	Implement at the Impact Investigation and Verification Efforts																		\$C
	Task 3: Item Collection																		\$C
	Task 3: Analysis																		\$C
	Task 3: Other																		\$C
4	Additional Activities																		\$C
5	Project Management and Reporting																		\$C
	Subtotal	\$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$C
	Mark-up on subsequent labor and materials @ 4%																		\$C
	Total																		\$C

**Table 2B-6. Calendar Year 2016 Hours and Costs for TEESI**

		Material Costs	Estimated Hours Per Job Title (2014)													Overtime M&V		Total Hours	Cost Using 2014 Billing rates
Task			Principal	Engineering II	Project Manager/III	Project Coordinator / Engineer I	Engineer I/Sr. Designer	Engineer Designer	Jr. Engineer / Designer	Sr. CAD Mgr./Sr. Tech.	CAD Designer/ Tech.	Jr. Technician	Office Administrator	Engineer Assistant	Office Clerk	Residential	Nonresidential		
Task #	Task Title	Notes	1161	1150	1130	1120	1110	1102	1091	1081	1070	1050	1032	1015	1000	11,340			
1A	Evaluation/Prioritization Memo																\$0		
1B	2015 Portfolio "E&M&V" Plan																\$0		
1C	Other Planning Documents																\$0		
2	Develop and Maintain TRVI																\$0		
3	Implement the Impact Evaluation and Verification Efforts																\$0		
	Task 3: Data Collection		64			400										100	444	\$208,684	
	Task 3: Analysis		22			230											272	\$15,792	
	Task 3: Other																	\$0	
4	Additional Activities																	\$0	
5	Project Management and Reporting		23									30					43	\$1,051	
	Subtotal		141	91	-	-	630		-	-	-	20	-	-	-	100	761	\$249,541	
	Markup on subcontractor labor and materials direct = 4%																		\$9,982
	Total																		\$259,523



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**Table 2C-6. Calendar Year 2015 and 2016 Budgets for TEESI**[illegible]